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draft section 4(f)  
evaluation, Big  
Hole River bridge,  
west of Melrose



*Environmental Assessment and  
Draft - Section 4(f) Evaluation*

**BR 9047 (13)  
Big Hole River Bridge - West of Melrose  
Butte-Silver Bow and Beaverhead Counties, Montana**

U.S. Department of Transportation  
Federal Highway Administration,  
*and the*  
State of Montana  
Department of Transportation

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**ENVIRONMENTAL ASSESSMENT**  
and  
**DRAFT Section 4(f) EVALUATION**

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**Big Hole River Bridge - West of Melrose  
BR 9047 (13); Control No. 1483  
Butte-Silver Bow and Beaverhead Counties, Montana**

This document is prepared in conformance with the *Montana Environmental Policy Act (MEPA)* requirements and contains the information required for an Environmental Assessment under the provisions of ARM 18.2.237(2) and 18.2.239. It is also prepared in conformance with the *National Environmental Policy Act (NEPA)* requirements for an Environmental Assessment under 23 CFR 771.119.

Submitted pursuant to:

**42 U.S.C. 4332(2)(c), 49 U.S.C. 303 and  
Sections 2-3-104, 75-1-201, M.C.A.**

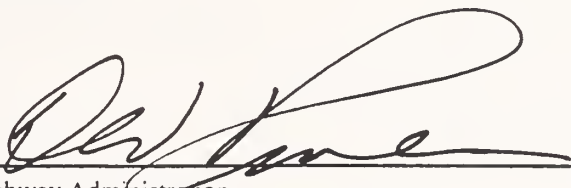
by the

**U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration**

and the

**MONTANA DEPARTMENT OF TRANSPORTATION**

Submitted by:  Date: 10/5/98  
MONTANA DEPARTMENT OF TRANSPORTATION  
Environmental Services

Reviewed & Approved for  
Distribution:  Date: 10-23-98  
Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

Joel M. Marshik, P.E., Manager  
Environmental Services  
MONTANA DEPARTMENT OF TRANSPORTATION  
2701 Prospect Avenue  
P.O. Box 201001  
Helena, Montana 59620-1001

Dale W. Paulson  
Environmental Program Manager  
Region #8, Montana Division  
Federal Highway Administration  
301 South Park, Drawer 10056  
Helena, Montana 59626-0056



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## Table of Contents

	Page No.
<b>Cover Page</b>	
<b>Table of Contents</b> .....	i
<b>I. DESCRIPTION OF THE PROPOSED ACTION</b>	
A. Project Area .....	1
B. Project Location .....	1
C. Description of Project .....	1
D. Project Funding .....	4
<b>II. PURPOSE AND NEED FOR ACTION</b>	
A. Road and Bridge Use .....	6
B. Current Deficiencies .....	6
C. Traffic Safety and Efficiency .....	7
<b>III. ALTERNATIVES CONSIDERED</b>	
A. Introduction .....	8
B. Alternatives Considered .....	8
1. The No Build Alternative .....	8
2. Rehabilitate the Existing Bridge .....	8
3. Build Alternatives .....	9
a) Alternative "A" - Replace the Bridge on the Existing Alignment .....	9
b) Alternative "B"- Replace the Bridge Downstream from the Existing Bridge .....	11
c) Alternative "C-1"- Replace the Bridge 100 Meters Upstream of the Existing Bridge .....	11
d) Alternative "C-2"- Replace the Bridge Immediately Upstream of the Existing Bridge .....	11
C. Cost Estimates for Build Alternatives .....	12
D. Alternatives Eliminated from Consideration .....	13
1. No Build Alternative .....	13
2. Rehabilitate the Existing Bridge .....	13
3. Alternative A .....	14
4. Alternative B .....	14
5. Alternative C-1 .....	15
E. Preferred Alternative .....	15
1. Reasons for Selection .....	15
2. Description of the Preferred Alternative .....	16
<b>IV. AFFECTED ENVIRONMENT and ENVIRONMENTAL IMPACTS</b>	
A. Introduction .....	18
B. Environmental Impacts .....	19
1. Land Use Impacts .....	19
2. Farmland .....	19
3. Right-of-Way Impacts, Utility Impacts, and Relocations .....	19
4. Social Impacts .....	20
5. Economic Impacts .....	21

	Page No.
6. Floodplains .....	21
7. Erosion Control & Seeding .....	23
8. Wetlands .....	24
9. Biological Resources .....	25
a) Threatened/Endangered Species .....	25
b) Fisheries .....	25
c) Rare and Sensitive Plants .....	26
d) Sensitive Wildlife .....	27
10. Cultural, Archaeological/Historical Resources .....	27
a) Big Hole River Bridge (24BE1803/24SB588) .....	27
b) William Bowe Ranch (24SB585) .....	28
11. Air Quality .....	29
12. Noise .....	29
13. Hazardous Substances .....	29
14. <i>Section 4(f) of U.S. DEPARTMENT OF TRANSPORTATION Act</i> .....	30
15. <i>Section 6(f) of NATIONAL LAND &amp; WATER CONSERVATION FUND Act</i> .....	31
16. Visual Impacts .....	31
17. Secondary and Cumulative Impacts .....	33
18. Construction Impacts .....	33
19. Permits Required .....	34
<b>V. DRAFT SECTION 4(f) EVALUATION</b>	
A. <i>Section 4(f) Properties</i> .....	35
1. Salmon Fly Fishing Access Site .....	35
2. Big Hole River Bridge (24BE1803/24SB588) .....	40
3. William Bowe Ranch (24SB585) .....	40
B. Impacts on <i>Section 4(f) Properties</i> .....	40
1. Impacts on the Salmon Fly FAS .....	40
2. Impacts to the Big Hole River Bridge (24BE1803/24SB588) .....	44
3. Impacts on the William Bowe Ranch (24SB585) .....	44
C. Avoidance Alternatives .....	44
1. No Build .....	44
2. Close the Existing Bridge .....	47
3. Rehabilitate the Existing Bridge .....	47
4. Rebuild the Bridge on the Same Alignment .....	48
5. Shift the Alignment to Avoid <i>Section 4(f) Properties</i> .....	48
a) Upstream Alignment Shifts .....	48
b) Downstream Alignment Shifts .....	49
c) Conclusion .....	49
D. Measures to Minimize Harm .....	49
1. Mitigation for Impacts to the Salmon Fly FAS .....	49
2. Mitigation for Impacts to the Big Hole River Bridge (24BE1803/24SB588) .....	50
3. Mitigation for Impacts to the William Bowe Ranch (24SB585) .....	50
E. Coordination .....	51
<b>VI. COORDINATION WITH OTHERS</b>	
A. Agency Coordination .....	53
B. Public Involvement .....	53



	Page No.
C. Distribution List for Document .....	54
D. List of Agencies With Jurisdiction and/or Permits Required .....	55
E. List of Other Agencies, Persons, or Groups Contacted or Have Contributed Information .....	55

## APPENDICES

Appendix A:	List of Preparers
Appendix B:	Correspondence Pertinent to Project
Appendix C:	Public Meeting Comments
Appendix D:	Structure Inventory and Appraisal Reports
Appendix E:	Materials Pertinent to <i>Section 4(f)</i> Evaluation

## List of Figures, Photographs, and Tables

	Page No.
Figure 1: Project Vicinity Map .....	2
Figure 2: Project Area Topographic Map .....	3
Figure 3: Build Alternatives Considered .....	10
Figure 4: Preliminary Plan Sheet - Preferred Alternative (6-97) .....	17
Figure 5: Flood Hazard Boundary Map - Melrose Area .....	22
Figure 6: <i>Section 4(f)</i> Properties .....	36
Figure 7: Layout of Salmon Fly FAS .....	38
Figure 8: Site Layout of William Bowe Ranch (24SB585) .....	41
Figure 9: Impacts on Salmon Fly FAS .....	45
Figure 10: Impacts on William Bowe Ranch (24SB585) .....	46
Photo Plate 1: Photographs of the Existing Bridge .....	5
Photo Plate 2: Photographs of Salmon Fly FAS .....	39
Photo Plate 3: Representative Features of the William Bowe Ranch (24SB585) .....	42
Photo Plate 4: Representative Features of the William Bowe Ranch (24SB585) .....	43
Table 1: Estimated Costs for Build Alternatives Considered .....	12





# I. Description of the Proposed Action



## I. DESCRIPTION of the PROPOSED ACTION

### A. Project Area

The project area is located in southwest Montana near Melrose, a small community in the extreme southwestern portion of Silver Bow County. Melrose is situated about 48 kilometers (km), or about 30 miles, north of Dillon in Beaverhead County and about 56 km (35 miles) southwest of Butte. The project area is in the Big Hole River Valley which lies between the East Pioneer Mountains and the Highland Mountains. The Big Hole River, a nationally renowned fishery, passes through the project area. The Montana Department of Fish, Wildlife & Parks (MDFWP) has recognized this “blue ribbon” stream by rating this reach of the Big Hole River in its highest category (Class 1) for resource values and sport fishery potential.

Interstate 15 (I-15) serves as the major travel corridor for vehicle traffic passing through the area. The old highway through the area, which now serves as a frontage road for I-15, also receives substantial use by local traffic.

FIGURE 1 shows the general location of this project.

### B. Project Location

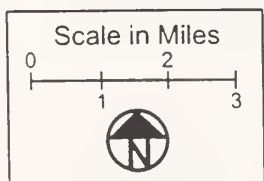
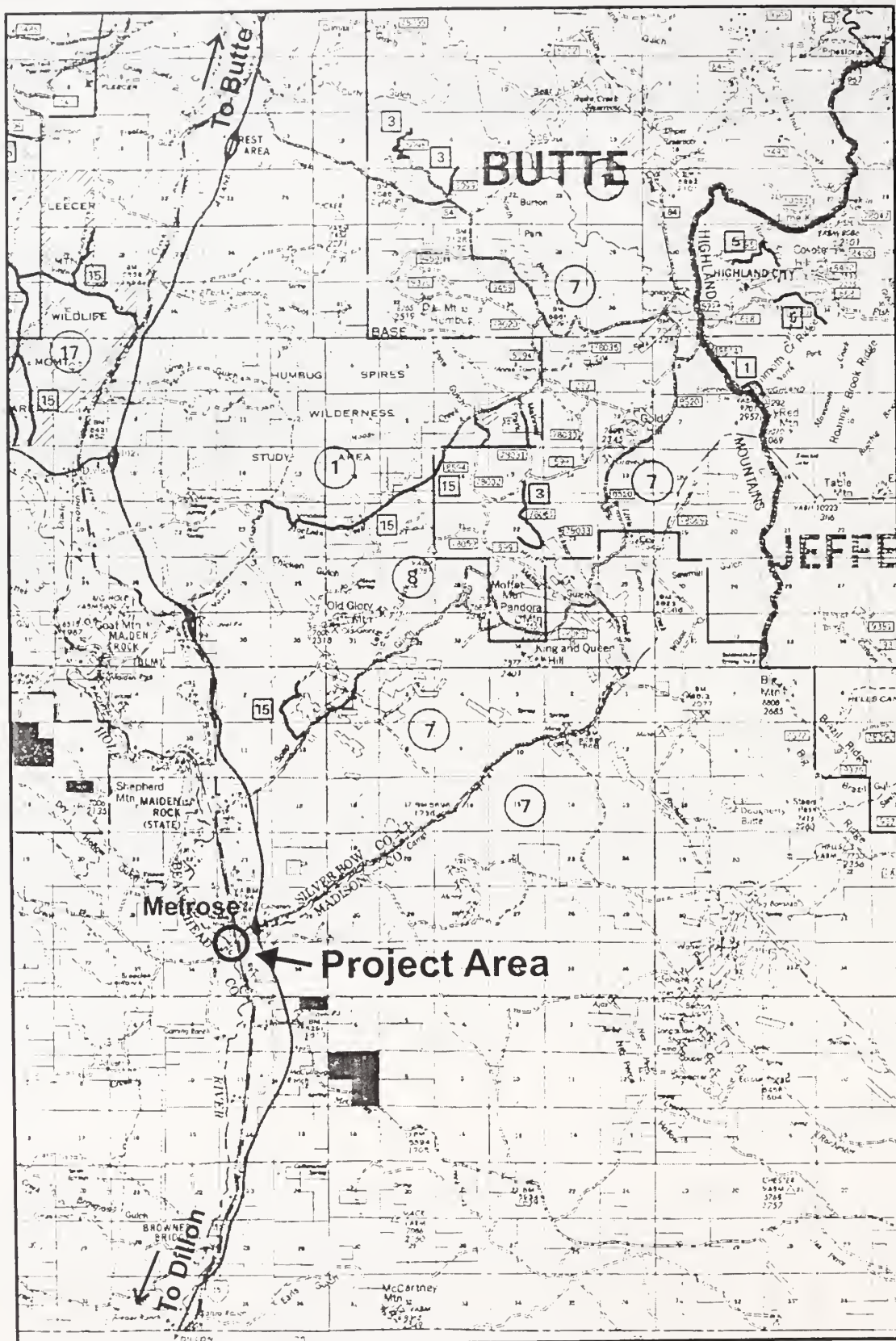
The MONTANA DEPARTMENT OF TRANSPORTATION (MDT), in cooperation with Butte-Silver Bow County, is planning to replace a bridge over the Big Hole River on an off-system County road near Melrose. The proposed bridge replacement is located approximately 0.4 kilometers (one-quarter of a mile) southwest of the community. It is situated in the Northwest ¼ of Section 35 in Township-2-South, Range-9-West, M.P.M. on Trapper Creek Road west of Melrose. The existing bridge spans the Big Hole River and connects lands in Butte-Silver Bow and Beaverhead Counties.

A more detailed map of the project’s location is shown in FIGURE 2. Photographs of the existing crossing are presented in PLATE 1.

### C. Description of the Project

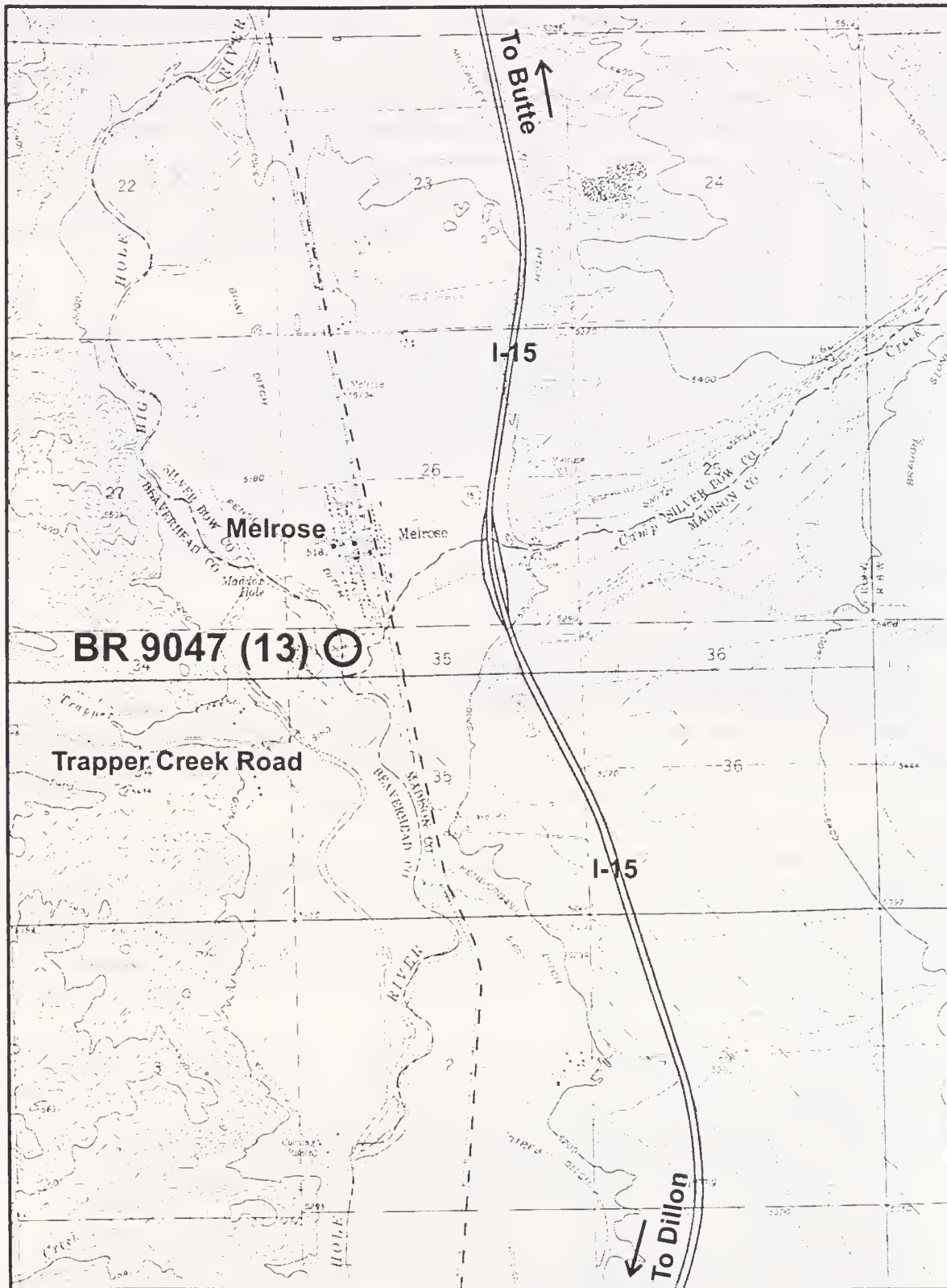
The proposed action will improve the existing crossing for greater safety and adherence to design standards by building a new bridge. The existing structure is a two-span pony truss founded on concrete abutments at each end and a concrete pier at its center. The existing bridge is about 4.6 meters (15 feet) wide between rails and accommodates one lane of traffic. The bridge has a posted load limit of two tons. It is the intent of this project to remove and replace the existing structure and construct a new bridge and approaches. The project is being designed for 60 kilometers per hour (km/h) or 40 miles per hour as determined by the average daily traffic for the project route. This will provide a safe bridge and approach road for all users.

The new bridge deck will have a finished surface that is 7.2-meters-wide (24 feet) between the faces of the bridge rail and will accommodate two lanes of traffic. The new structure will be designed for




**Figure 1:  
Project Vicinity Map**





Scale: 1" = 2000'



**Figure 2:**  
**Project Area Topographic Map**  
**Big Hole River West of Melrose**

an HS-20 loading. Since recreational floating occurs on this reach of the Big Hole River, the supporting structure for the new bridge will be designed to maintain an adequate clearance between the high water elevation of the river and the bottom of the supporting beams. MDT has already agreed with the MDFWP to meet or exceed the low-beam elevation of the existing bridge to ensure sufficient head room is available for floaters. The bridge will be designed to conform with MDT's "Bridge Design Standards" and current American Association of State Highway and Transportation Officials (AASHTO) Standard Specifications.

The existing approaches to the bridge have gravel surfaces and are typically 7.2 meters (24 feet) in width. The proposed action will also include construction of new roadway approaches to the bridge. The horizontal and vertical alignment of the new approaches will depend upon the selected bridge site, the elevation of the new bridge deck, and the required transitions to existing roads in the area. The approaches to the new bridge will have a bituminous (double-shot) surfacing treatment.

The existing structure will be salvaged if possible and offered to an interested party as required under **23 U.S.C. § 144**. If Butte-Silver Bow County is not interested in reusing the truss, the old structure may be given to another county, an interested party, or the contractor.

## D. Project Funding

Off-system bridges (bridges not located on Interstate, National Highway System, Primary, Secondary, or Urban routes) are owned by the counties in which they are located. MDT inspects off-system bridges and occasionally designs and builds some county-owned structures. In this instance, Butte-Silver Bow County owns the Big Hole River bridge at Melrose.

The MDT receives money for bridges through the Highway Bridge Replacement and Rehabilitation Program (HBRRP) funded under the Federal Highway Trust Fund. HBRRP program funding is 80% federal with a 20% state match. Thirty-five percent of the funds allocated to the State's HBRRP, are dedicated to off-system bridges. The program allocates funds to Montana's five financial districts based on need. The funds are then distributed to counties on a priority basis.

To ensure that the funds for off-system bridges are allocated fairly, MDT employs a system to rate the bridge's ability to meet the transportation needs of the public by evaluating the bridge's structural and functional adequacy. Lists are sent to counties showing which bridges are eligible for off-system funds and priorities for rehabilitation or replacement are assigned by the local government. Counties must nominate the off-system bridges they want improved.

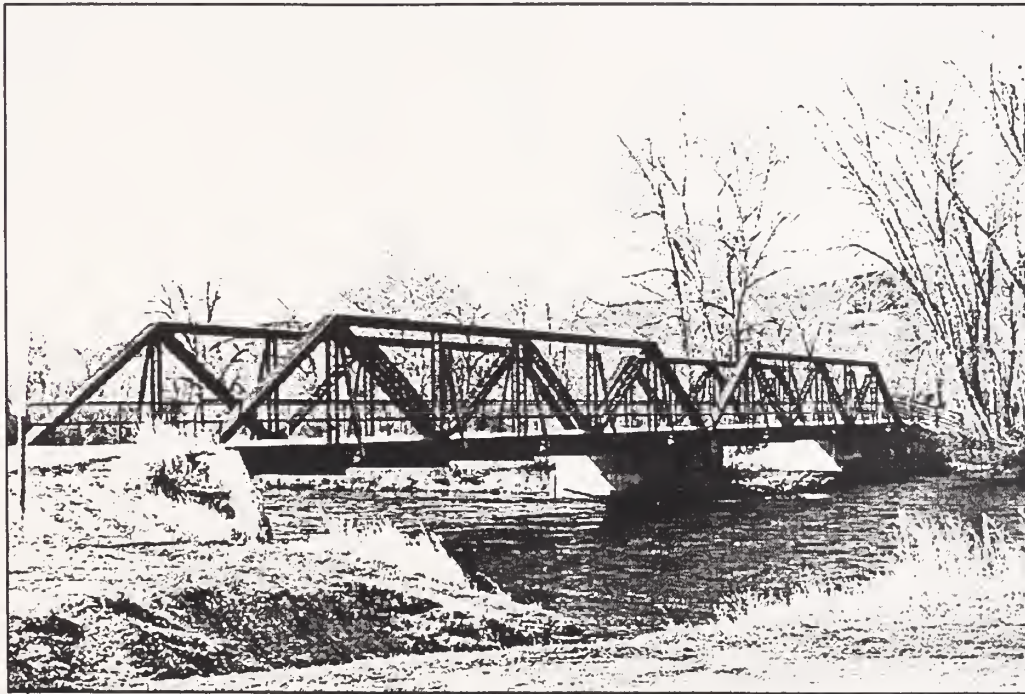
The rating system used by MDT to determine the adequacy of bridges is called a Sufficiency Rating. A new bridge typically has a sufficiency rating of 95 or higher. Whenever a bridge's Sufficiency Rating falls below 80, it becomes eligible to receive rehabilitation funding if it is **functionally obsolete and/or structurally deficient**. When a bridge's Sufficiency Rating falls below 50, it can be nominated for replacement. According to a recent Structure Inventory and Appraisal by MDT, the Sufficiency Rating for the Big Hole River bridge west of Melrose is 31.1. Deficiencies of the existing bridge are discussed further in Part II of this Environmental Assessment.



## Plate 1: Photographs of the Existing Bridge



Looking West Across Bridge from East Approach



Looking Southwest at Bridge from East Bank





## II. Purpose and Need for Action



## II. PURPOSE and NEED for ACTION

### A. Road and Bridge Use

This crossing and county road provides access to ranches along Trapper Creek and lands in the Beaverhead National Forest. The bridge and road are used by local traffic (residents, farm equipment, and mail and parcel delivery vehicles) as well as by recreational traffic accessing the Big Hole River from the Salmon Fly Fishing Access Site (FAS) at the west end of the existing bridge. The river and FAS are used extensively by river guide services and recreational fisherman during the late spring and early summer months.

Design traffic data for the project route is summarized below:

Current Year (1997) Average Daily Traffic	=	170 vehicles per day
Letting Year (1998) Average Daily Traffic	=	180 vehicles per day
Design Year (2018) Average Daily Traffic	=	260 vehicles per day
Design Hourly Volume (DHV)	=	50 vehicles
Directional Factor (D)	=	55-45%
Trucks	=	20%%
All Trucks	=	75 Daily
8165 kg ESAL's*	=	10.98

\* ESAL's are Equivalent Single Axle Loads

### B. Current Deficiencies

The Big Hole River bridge is an 81-year-old steel truss bridge. The bridge has been found to be **functionally obsolete and structurally deficient** based on its Sufficiency Rating of 31.1 by MDT (*STRUCTURE INVENTORY AND APPRAISAL* form dated May 20, 1993 in APPENDIX D). Therefore, according to MDT's Bridge Management Program for off-system bridges, the structure is eligible for rehabilitation or replacement. Butte-Silver Bow County has nominated this bridge for replacement rather than rehabilitation. The reasons that the existing bridge is functionally obsolete and structurally deficient are discussed below.

- ❖ The existing bridge is functionally obsolete with its current two-ton load limit when it actually warrants a 36-ton load limit. The structure's live load limit was substantially reduced by the placement of a new concrete deck on the bridge. Because of the low load rating, fire trucks, garbage and septic service trucks, and any other larger-than-normal truck loads cannot safely cross the bridge. This fact inconveniences users and residents of the area and may in extreme cases (like the need for fire protection) put lives and property at risk.
- ❖ The existing structure is 61± meters (200 feet) in length and 4.6± meters (15 feet) in width and serves only one lane of traffic. The standard minimum width for a two-lane bridge is 7.2 meters (24 feet) which accommodates two 3.6 meter-wide (12-foot-wide) travel lanes.

- ❖ The substructure concrete shows substantial deterioration and state maintenance personnel have assisted the county in shoring up the center pier for movement of an overweight load. MDT's most recent inspection of the structure showed that the end abutments and several of the bridge piers have cracking and areas of spalled concrete. The existing concrete deck also has random lateral cracking and has several sections where concrete is breaking near the bridge joints.
- ❖ Other parts of the existing bridge's supporting structure (floorbeams, stringers, and bracing) have medium to heavy rusting and scaling. The truss also shows signs of stress at the gusset rivets due to the heavy concrete load of the bridge deck.
- ❖ The existing vertical alignment of the approaches has short steep grades onto both ends of the bridge that limit sight distance. This condition could cause vehicle conflicts if westbound and eastbound traffic simultaneously try to use the one-lane bridge.

### C. Traffic Safety and Efficiency

The history of motor vehicle accidents in the vicinity of the bridge is not extensive. Two investigated accidents occurred on the existing structure between January 1, 1979 and December 31, 1996. Both accidents involved vehicles meeting on the bridge and neither accident produced serious injuries. Even though the accident history at this crossing does not appear to be significant, the limited sight distance on the immediate approaches to the bridge, the horizontal curves on the approaches to the structure, and the potential for vehicle conflicts on the narrow bridge are conditions that could be factors in accidents at this location.

The build alternatives considered for this project will provide a safer and more efficient facility for road users. A new structure with a wider roadway surface on the bridge deck and approaches will provide better access for residents, road users, and recreationists traveling in and out of the area. The two-lane roadway proposed for the approaches to the new bridge will improve safety for motorists, pedestrians, and bicyclists by widening the road's surface and providing improved sight distance for drivers.

An upgraded or new bridge also provides for a substantial improvement in public safety. The load restrictions imposed on the current bridge causes large emergency vehicles to use alternate routes and lengthens emergency response times. Improving the bridge will help reduce emergency response times and decrease the risk to life and/or property to residents of the area.

Replacing the existing bridge is a more efficient facility for road users. The new bridge will be able to carry loads in excess of 36 tons. The restricted capacity of the present structure, or the potential closure of the bridge due to a structural failure, results in longer travel times, increased fuel consumption, and additional vehicle wear and emissions. The provision of a new bridge will help reduce travel times, decrease fuel consumption, and reduce vehicle wear and emissions since motorists driving oversize vehicles traffic must use alternate routes to cross the Big Hole River in this area.

### III. Alternatives Considered





### **III. ALTERNATIVES CONSIDERED**

#### **A. Introduction**

Montana highway and bridge projects are developed to meet or exceed the minimum geometric standards for bridges and highways. These recommended standards are based on policies and design guidelines established by the AASHTO. Since MDT is acting on behalf of, and in the best interests of Butte-Silver Bow and Beaverhead Counties, this project was developed to meet MDT's geometric design standards. Considering the many deficiencies of the existing bridge, substantial upgrading is required to meet geometric standards for the bridge and its approaches.

Alternatives for this proposed action are identified and examined in this Part. The following text discusses the range of alternatives initially considered for this project, identifies a Preferred Alternative, and discloses the reasons one alternative is preferred to the others considered for this proposed action.

#### **B. Alternatives Considered**

Alternatives that would correct or minimize the operational and structural deficiencies of the existing crossing are identified in this section of the Environmental Assessment. These alternatives generally include the No Build Alternative, rehabilitating the existing bridge, and four build alternatives that would replace the existing structure. Each alternative addresses identified safety or operational problems with the existing bridge to various degrees. These alternatives are described below:

##### **1. The No Build Alternative**

The No Build alternative (also known as the "do nothing" or "no action" alternative) involves no work to improve or correct deficiencies associated with the Big Hole River bridge west of Melrose. This alternative would not change the existing bridge or its approaches. However, the roadway and structures would receive the minor actions needed to maintain the existing facilities for continued public use.

There are no direct costs associated with this alternative and no new impacts would occur on the surrounding environment. There would be no impacts on adjacent residential lands or agricultural properties or change in access due to the acquisition of new right-of-way and realignment of the roadway. There would be no loss of habitat for wildlife adjacent to the Big Hole River or changes to the visual appearance of the project area. However, impacts like the potential for motor vehicle accidents on the structure and its approaches and the inability to move large fire, service, and public safety vehicles across the bridge would continue with the No Build alternative.

##### **2. Rehabilitate the Existing Bridge**

Rehabilitation of the existing bridge involves salvaging usable parts from the structure while installing new members and pieces where needed. The original structure is likely to be left standing in place while undergoing repairs. Rehabilitating old bridges, particularly historic bridges, is a fairly

common practice in the U.S. Old bridges often serve as symbols of the past and as important landmarks in the local community.

The environmental impacts of rehabilitating this bridge would be less than those associated with building a new structure since this alternative retains the existing length, alignment, and structural system of the main spans of the bridge. Rehabilitation of the existing structure would not require any substantial changes to the approaches for each bridge. Structural renovations would increase the load rating of the bridge and the appearance and character of the old bridge would be maintained. In the case of the Big Hole River bridge at Melrose, this consideration is important since the structure was determined to be eligible for the NATIONAL REGISTER OF HISTORIC PLACES (NRHP).

### 3. Build Alternatives

Four build alternatives were considered for this proposed action which involve building a new bridge at various locations within the project area. These alternatives ranged from building a new bridge and approaches at the site of the existing crossing to providing a new bridge at either upstream or downstream locations. For convenient reference, the build alternatives were identified as follows:

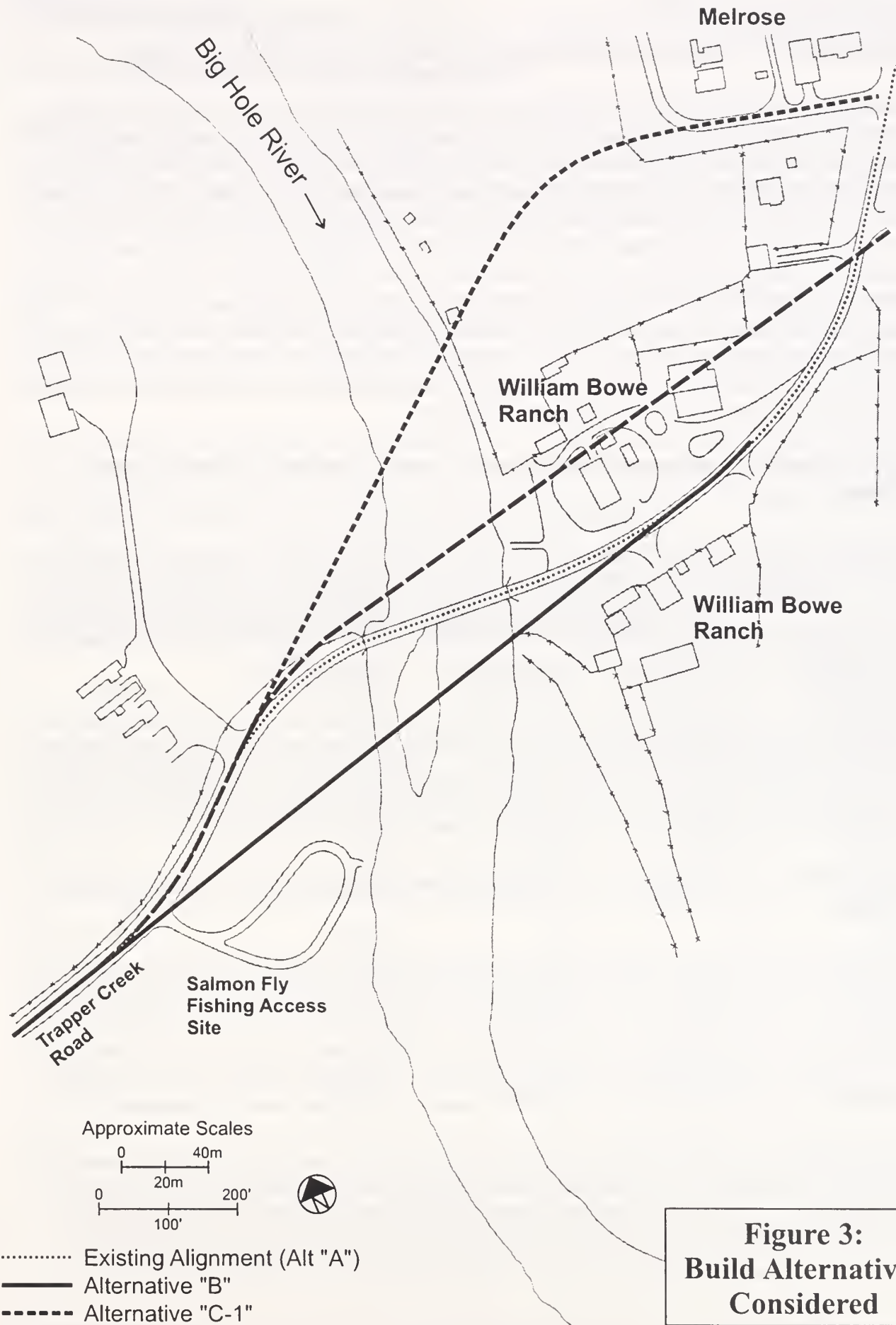
<b><u>Alternative A</u></b>	Replace the Bridge on the Existing Alignment
<b><u>Alternative B</u></b>	Replace the Bridge Downstream of the Existing Bridge
<b><u>Alternative C-1</u></b>	Replace the Bridge 100 Meters Upstream of the Existing Bridge
<b><u>Alternative C-2</u></b>	Replace the Bridge Immediately Upstream of the Existing Bridge

**FIGURE 3** shows the build alternatives in relation to the existing road and bridge. All build alternatives (Alternatives A through C-2) would construct a new bridge deck 7.2 meters (24 feet) wide and accommodate two-way traffic. The new bridge would have a service life of between 75 to 100 years and require little maintenance. All of the build alternatives would provide a new bridge capable of safely carrying 36-ton loads. The new crossing would satisfy applicable AASHTO Standard Specifications and MDT's "Bridge Design Standards." Approach construction on Trapper Creek Road associated with the build alternatives would provide a new road 7.2 meters (24 feet) wide. A more complete description of the build alternatives is presented below.

#### a) Alternative "A" - Replace the Bridge on the Existing Alignment

This alternative would construct a new bridge on the same location as the existing crossing. The new bridge deck elevation would be raised above the existing elevation of the bridge deck to maintain headroom for floaters. Alternative A would retain the existing alignment and length of the existing bridge. This alternative would require that the vertical alignment of the approaches to the bridge be raised but no major changes in the horizontal alignment would be needed. This alternative would require that the existing crossing be closed or that detour and alternate river crossing be provided during construction of the new bridge.

The environmental impacts of this alternative would generally be confined to the existing roadway corridor and only minor amounts of new right-of-way would be needed for construction of the alternative.



**Figure 3:  
Build Alternatives  
Considered**



**b) Alternative "B" - Replace the Bridge Downstream of the Existing Bridge**

This alternative would construct a new bridge on a skewed alignment some 15 to 30 meters (50 to 100 feet) downstream (south) from the existing crossing. Alternative B would require the construction of about 180 to 210 meters (600 to 700 feet) of new approach road on an alignment tangent to the new bridge. This alternative would pass through the western portion of the FAS and require substantial amounts of new right-of-way from the recreation site. Following construction, the existing structure would be removed and abandoned areas of approaches would be reclaimed.

This alternative provides the best possible roadway geometrics of the alignments considered. The new approaches would be tangent (straight) to the alignment of the new structure and would eliminate horizontal curves on the existing approaches. This alternative also allows the existing bridge and its approaches to remain open to traffic during the construction of the new bridge minimizing disruptions to traffic on Trapper Creek Road.

**c) Alternative "C-1" - Replace the Bridge 100 meters Upstream of the Existing Bridge**

This alternative would involve the construction of a new bridge on a skewed alignment some 50 to 100 meters (about 150 to 330 feet) upstream (north) of the existing bridge. This alternative would require the construction of more than 210 meters (about 700 feet) of new approach roadway and would ultimately route traffic through the town of Melrose. Following construction, the existing bridge would be removed and abandoned approach areas would be reclaimed.

Like Alternative B, traffic could be maintained on the existing bridge and its approaches during the construction of the new bridge. Local and recreational traffic movements would be unaffected during the construction period. This alternative would have minimal impacts on the Salmon Fly FAS. Although a permanent residence could be affected, right-of-way acquisitions for this alternative would generally be confined to vacant lands on the east and west sides of the river.

**d) Alternative "C-2" - Replace the Bridge Immediately Upstream of the Existing Bridge**

This alternative would construct a new bridge on a skewed alignment some 25 meters (about 80 feet) upstream from the present crossing. The west approach to the bridge would be reconstructed on an alignment that closely follows the current alignment of Trapper Creek Road. The construction of some 280 meters (about 900 feet) of new roadway on an alignment tangent to the new structure would be required on the east approach to the new bridge. The existing bridge would be removed following construction and abandoned areas of the present approaches would be reclaimed.

Shifting the alignment of the bridge and its approaches to the north as proposed by this alternative would minimize right-of-way needs from the Salmon Fly FAS. Desirable geometrics would be provided on the east approach to the new crossing. Like Alternatives B and C-1, the existing bridge and its approaches would be used to maintain traffic during the construction of the new bridge.

## C. Cost Estimates for Build Alternatives

Preliminary alignments of each build alternative considered for this project were prepared and used as a basis for estimating the cost of each proposal. These preliminary alignments, along with assumptions about right-of-way requirements and the design and construction of the new bridge and related facilities, were used to estimate the costs of each build alternative.

**TABLE 1** presents the approximate costs of each build alternative. The information in the table identifies typical costs associated with right-of-way acquisition and construction of the new bridge and its approaches. Additionally, the cost for removing the old bridge is estimated to be about \$34,000. Of this total, removal of the existing bridge's superstructure would cost \$25,000. This amount would be available to an interested party to help defray the costs of moving the bridge.

No cost estimate was prepared for rehabilitating the structure since detailed analyses would be required to establish the potential scope and magnitude of the work to be undertaken at the bridge. Previous experience has shown that the costs associated with rehabilitating old bridges in Montana often equals or exceeds the costs of building an entirely new structure.

**TABLE 1: Estimated Costs for "Build" Alternatives Considered  
Big Hole River Bridge - West of Melrose; BR 9047 (13)**

<b>Cost Item</b>	<b>Alternative A</b> Rebuild on Existing Alignment	<b>Alternative B</b> Replace Bridge Downstream	<b>Alternative C-1</b> Replace Bridge Upstream (Access through Melrose)	<b>Alternative C-2</b> Replace Bridge Immediately Upstream
Roadwork and Surfacing	\$19,000	\$17,100	\$28,000	\$24,800
Embankment in Place	\$26,000	\$23,200	\$45,300	\$40,100
Right-of-Way	\$7,000	\$41,600	\$132,400	\$130,000
Bridge with Guardrail	\$346,000	\$535,000	\$548,000	\$535,000
Detour & Approach	\$200,000	\$0	\$0	\$0
Remove Old Bridge	\$34,000	\$34,000	\$34,000	\$34,000
10% Contingency	\$63,200	\$65,100	\$78,800	\$76,400
15% Engineering	\$104,300	\$107,400	\$130,000	\$126,400
<b>TOTAL</b>	<b>\$799,500</b>	<b>\$823,400</b>	<b>\$996,500</b>	<b>\$966,300</b>

### NOTES:

- Alternative A does not meet MDT geometric requirements, but is included to reflect comparable costs. A cost estimate for right-of-way was prepared assuming \$3500/acre, which is based on historical costs for similar projects. The right-of-way cost estimate assumes the purchase of out buildings along existing alignment.
- The right-of-way cost for Alternative B includes \$35,000 for the purchase of 10 acres of replacement land for impacts to the fishing access site located on the west side of the bridge.
- The right-of-way costs for Alternative C-1 and C-2 assume the purchase of one full-time residence.

## D. Alternatives Eliminated from Consideration

The alternatives identified in this section were considered but not advanced for this proposed action. The reasons that the alternatives were eliminated from consideration are also clearly identified. The primary factors used to determine if an alternative should no longer be considered for this proposed action were:

- Does the alternative meet the purpose and need specified in Part II of the Environmental Assessment?
- Does the alternative result in adverse environmental impacts?
- How acceptable is the alternative to the public?

### 1. No Build Alternative

The No Build was eliminated from consideration because it does not meet the purpose and need for this proposed project. This alternative would not improve the existing bridge which has been determined to be functionally obsolete and structurally deficient. The No Build alternative would not address the traveling public's needs for improved traffic safety or satisfy MDT's current geometric design standards for horizontal and vertical alignment and bridge width.

### 2. Rehabilitate the Existing Bridge

Rehabilitating the existing structure was eliminated from further consideration because the rehabilitated structure would not meet AASHTO recommendations and/or MDT geometric design standards for design speed and road width. The existing bridge could not be sufficiently upgraded to provide for two driving lanes. Poor driver sight distance on the approaches to the bridge would not be corrected. Following rehabilitation, the majority of the bridge would still be more than 80 years old, and structural considerations (like pin connections and pier foundations) would need to be investigated. At best, the service life of the bridge would be extended by 20-25 years. Salvage of the bridge would be unlikely after that time.

The MDT Bridge Bureau's experience with similar projects has shown that the costs of rehabilitating the existing bridge would be nearly the same as building a new structure due to the labor-intensive nature of the work. Additionally, remnants of lead-based paint (a hazardous substance) applied to the structure in the past remains on the existing bridge. This old paint would need to be removed prior to repainting the structure. The removal and disposal of lead paint is a time consuming and costly process regulated by the U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), the Occupational Safety and Health Administration (OSHA), and the MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ). The required procedures associated with the removal and disposal of lead paint would add substantially to the overall costs of the proposed action.

Finally, Butte-Silver Bow County has nominated this bridge for replacement rather than rehabilitation. Rehabilitating the structure would not be consistent with the intentions of local



government.

### 3. Alternative A

Alternative A was eliminated from consideration because it would not provide desirable roadway geometrics on the approaches to the new bridge. A new bridge constructed on the existing alignment would require that the bridge deck elevation be raised about 1.2 meters (4 feet) above that of the existing deck. This grade raise would limit sight distance at the ends of the bridge by increasing the vertical curves on each approach to the new structure. Perpetuating the reverse curve on the west approach to the bridge is also undesirable and would limit the design speed to 40 km/h (25 mph). This would not be consistent with MDT's intentions of providing a 60 km/h design speed, one of the fundamental purposes and needs for this project.

Additionally, building a new bridge on the existing alignment would require the temporary closure of Trapper Creek Road, a heavily used local road or the use of a detour and alternate crossing location to maintain traffic on the route until the new bridge could be used. According to officials from Butte-Silver Bow County, closing the road for the 60-90 days needed to reconstruct the bridge on its present location is unacceptable due to the heavy use of the crossing. Using a detour and alternate crossing would add considerably to the cost of the project. Temporary adverse impacts to adjacent land uses such as the Salmon Fly FAS or rural residences could occur depending on where the detour and alternate river crossing is located.

Reconstruction of the approach roadway on the west side of the bridge would require additional right-of-way to accommodate changes to the road's cross-section and alignment. Minor amounts of property would have to be acquired from the Salmon Fly FAS. Because the FAS is a publicly-owned recreation site developed with federal money from the Land and Water Conservation Fund, other land acceptable to the MDFWP must be provided to replace the land needed for new right-of-way.

### 4. Alternative B

Alternative B was dropped from consideration due to its adverse impacts on the Salmon Fly FAS. Although this alternative could be developed on an alignment that would meet current geometric standards, approximately one-third of the 4.98 hectares (12.3 acres) comprising the FAS would have to be acquired to accommodate the construction of a new bridge and its west approach on this alignment.

This alternative would require changes to the access and layout of the FAS and disrupt or limit the public's use of the facility during the bridge construction period. MDT would be obligated to provide replacement property or other acceptable mitigation at this or another similar recreation site since the FAS was developed with federal funds administered under *Section 6(f) of the Land and Water Conservation Fund Act*.

Concerns have been expressed by MDFWP that the required pier placements for the new bridge associated with this alternative may result in increased sediment deposition downstream.



## 5. Alternative C-1

This alternative was eliminated from consideration since it would require the acquisition of considerable amounts of right-of-way from private landowners including north of the existing crossing and could impact one full-time residence. The alternative would require that traffic on Trapper Creek Road be routed through the community of Melrose and that a new intersection be built near the east end of the project to connect with an existing street. This would change traffic circulation patterns within the community. The alternative could be constructed to meet all geometric standards. However, the cost of the new bridge would also be higher than other alternatives due to the skew of bridge and its required length. Costs associated with right-of-way and approach construction would also be higher than other build alternatives.

## E. Preferred Alternative

Alternative C-2 (Replace the Bridge Immediately Upstream of the Existing Bridge) is the Preferred Alternative and is the only build alternative being analyzed in the Environmental Assessment. As indicated previously in this Part, this alternative would build a new bridge immediately upstream from the existing structure. The new road and bridge would be constructed on a nearly tangent northeast-southwest alignment. The No Build Alternative is being analyzed in the Environmental Assessment for the purposes of providing a contrast or comparison with the Preferred Alternative.

### 1. Reasons for Selection

Alternative C-2 has been selected as the Preferred Alternative for the proposed action. This alternative was preferred because:

- the proposed alignment for the new bridge and roadway would be consistent with MDT's geometric design standards for design speed and road and bridge width;
- it results in only minor impacts to the Salmon Fly FAS and would not affect the use of the recreation site by the public;
- impacts to private property along the north side of the west approach are minor;
- the proposed alignment eliminates a curve on the east approach and improves sight distance at the crossing; and
- the existing bridge and road can remain in service during construction resulting in savings for traffic control and detour costs.

Another major consideration in the selection of Alternative C-2 as the Preferred Alternative is its acceptability to local residents. The alignment for Alternative C-2 was first suggested at a public meeting on the project by the landowner who would be most impacted by its construction. Comments made by at the public meeting by others were supportive of the new alignment.

Alternative C-2 was preferred because the No Build alternative does not satisfy the specified purpose and need for improvements to bridge. The existing bridge is more than 80-years-old and has been found to be functionally obsolete and structurally deficient. The structure is too narrow to provide for two lanes of traffic and load limitations have been established for the bridge which restricts use by trucks carrying otherwise legal-weight loads. Butte-Silver Bow County would also continue to be liable for the operation and maintenance of the deteriorating structures. This liability could become more costly to local government as the structure continues to age and deteriorate. The limitations on the use of the bridge by some large vehicles may inconvenience local residents and could potentially place property and lives at risk in extreme emergencies like fires.

Conditions relating to the No Build Alternative provide the basis for establishing the Purpose and Need for this proposed action as stated in Part II. Part II of this document indicates that the No Build Alternative does not meet the traveling public's needs in terms of traffic safety considerations and adherence to geometric design standards for bridges.

## 2. Description of the Preferred Alternative

The proposed new bridge will have an overall length of 67 meters (220 feet) and a deck width of 7.2 meters between faces of rails. T-101 bridge rail will be used over the length of the bridge. The new bridge will likely be supported by prestressed concrete beams set on end bents made of pipe piles and a drilled shaft pier near the center of the channel. The bridge's center pier will have a permanent steel casing or other measures to protection it from ice damage. The end bents and pier will be built on a skew to match the flow direction of the river at this location.

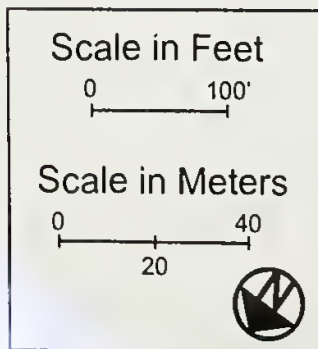
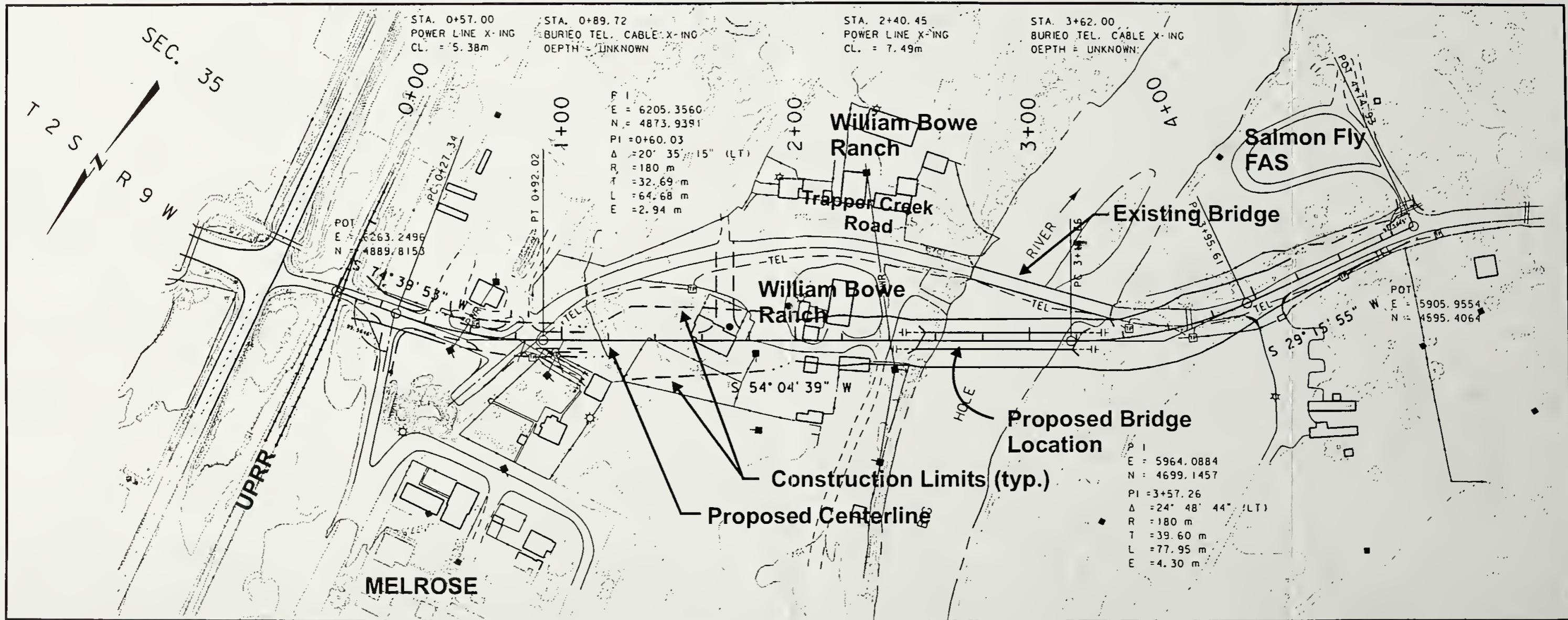
The typical section for the approaches will be 7.2-meters-wide. Road work will extend about 280 meters (920 feet) east of the new bridge and about 165 meters (540 feet) to the west of the structure. The approaches will have a double bituminous surface treatment "double shot." A new railroad crossing will be constructed at the east end of the project where the approach crosses two tracks of the Union Pacific Railroad (UPRR). The cost of building the crossing will be shared by MDT and the UPRR.

**FIGURE 4** shows the alignment and preliminary construction limits for the Preferred Alternative. The preferred alternative will require minor amounts of right-of-way along the northern edge of the FAS property to accommodate the reconstruction of the west approach to the new bridge. This will require MDT to provide replacement property or other acceptable mitigation for impacts on this Land and Water Conservation Fund property.

The plans for the proposed project are currently scheduled to be ready in June 1, 1998.







**Figure 4:**  
**Preliminary Plan Sheet**  
**Preferred Alternative (6/97)**



## **IV. Affected Environment and Environmental Impacts**





## IV. AFFECTED ENVIRONMENT and ENVIRONMENTAL IMPACTS

### A. Introduction

A review of the social, economic, and environmental factors and resources known to be affected by the proposed project at the Big Hole River Bridge west of Melrose were reviewed during the development of the Environmental Assessment. This review involved cooperation between MDT and Federal and State agencies, Butte-Silver Bow and Beaverhead County officials, and the general public. Urban impacts were not found in the study area due to the relatively rural setting of this proposed project and its limited scope.

This Part of the Environmental Assessment discusses the potential consequences of implementing the Preferred Alternative and of taking no action. Only the impacts with a reasonable possibility for individual or cumulative impacts are assessed in this Part. Where appropriate, measures to mitigate the environmental impacts of this project are discussed at the end of each section.

Contacts with federal and state agencies, local government, and the public helped identify issues or concerns important to the proposed action. These issues are discussed below:

- This proposed action will likely affect the existing Big Hole River bridge, the Salmon Fly FAS, and the William Bowe Ranch located on the east side of the crossing. The existing bridge and the William Bowe Ranch are properties determined eligible for the National Register of Historic Places (NRHP). The Salmon Fly FAS is a heavily used public recreation and fishing access site in this portion of southwest Montana.

Each of these properties are protected under *Section 4(f)* of the *U.S. Department of Transportation Act*. As such, alternatives to avoid or minimize impacts to the property must be investigated. The Salmon Fly FAS was developed with federal funding under *Section 6(f)* of the *Land and Water Conservation Fund Act*. Replacement property must be provided if lands from the FAS are used for transportation purposes.

- Impacts on adjacent landowners and potential relocations of residents are other important issues to this project. Implementing the Preferred Alternative would require the purchase of new right-of-way from nearby properties and could affect some full-time residents of these properties.
- Impacts on local traffic and recreational use of the Salmon Fly FAS are important considerations for this proposed action. Butte-Silver Bow County has indicated that closing the bridge may be tolerable for short periods but has asked that traffic be maintained, particularly during high use periods in the late spring and summer. Closure of the bridge for extended periods would be intolerable for local residents and users of the Salmon Fly FAS.
- Another issue concerning this proposed project is the placement of fill in the Big Hole River needed for the construction of new bridge piers and approaches associated with the proposed

action. Since the design has not yet been completed for the new bridge and its approaches, the amount of fill material that must be placed below the ordinary high water mark of the river has not yet been determined. The placement of fill will be subject to the conditions of various water quality-related permits that must be obtained for the bridge replacement.

These and other relevant issues for this proposed action are discussed in the following sections.

## **B. Environmental Impacts**

### **1. Land Use Impacts**

The project area is located on the outskirts of Melrose in an area used predominantly for livestock operations and rural residences. Residences exist to the east and west of the existing bridge and the Salmon Fly FAS is located southwest of the river crossing.

**Impacts of the Preferred Alternative** - The alignment of the Preferred Alternative would pass through a rural residential property on the west side of the new bridge and through the middle of a ranch property located on the east side of the crossing. This alternative would not have substantial impacts on existing land uses within the project corridor. The improvements associated with the Preferred Alternative are not expected to change land uses or substantially alter the rate at which lands in the area are developed due to the types of land holdings adjacent to the project.

**Impacts of the No Build Alternative** - The No Build Alternative would have no impact on the existing land uses in the corridor. Taking no action to improve the Big Hole River bridge west of Melrose would not inhibit future development in the project area.

### **2. Farmland**

The Whitehall Field Office of the U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE (NRCS) was contacted in December, 1995 about the presence of prime, unique, or important farmland in the project area. A soil conservationist from the NRCS indicated that none of the soils crossed by the proposed bridge replacement project near Melrose are prime, unique or important farmland. Therefore, neither the Preferred Alternative nor the No Action Alternative would affect farmland.

### **3. Right-of-Way Impacts, Utility Impacts, and Relocations**

**Impacts of the Preferred Alternative** - Construction of the Preferred Alternative will require various amounts of new right-of-way rural residential properties on the east and west sides of the river and from the Salmon Fly FAS located near the west end of the existing bridge. Approximately 0.82 hectares (2.02 acres) of new right-of-way and 0.15 hectares (0.37 acres) of construction permits will be required by the Preferred Alternative. The proposed bridge and approach construction will impact a residence and associated outbuildings on the William Bowe Ranch, a historic property, located east of the new bridge. However, this right-of-way acquisition would not require the relocation of residents since the affected residence and outbuildings would be moved to other

locations on the property. The impacts of the Preferred Alternative on the William Bowe Ranch are discussed further in this Part in Sections **9. Cultural, Archaeological/Historical Resources** and **10. Section 4(f) of U.S. DEPARTMENT OF TRANSPORTATION ACT**. A portion of Part V of this document also discusses impacts on the ranch property and the Salmon Fly FAS.

Utilities present within the project corridor for the Preferred Alternative include a telephone line contained in a conduit on the upstream side of the existing bridge. Other telephone lines and power lines are present in the path of the proposed alignment for the east approach. MDT's Utilities Section will coordinate with the affected utility companies to relocate these lines prior to the beginning of construction. As indicated in Part III, a new double track railroad crossing will be constructed across lines maintained by the Union Pacific Railroad at the east end of the proposed project.

All lands needed for right-of-way from private ownerships on this proposed project will be acquired by MDT in accordance with both the *Uniform Relocation Assistance and Real Property Act* of 1970 (P.L. 91-646) and the *Uniform Relocation Act Amendments* of 1987 (P.L. 100-17). Compensation for right-of-way acquisitions is made at "fair market value" for the "highest and best use" of the land. The right-of-way acquired under the build alternatives for this proposed project will be conveyed to Butte-Silver Bow County and Beaverhead County.

Actual appraisals of affected properties and a Relocation Plan (if required) will be prepared when final designs for the bridge replacement projects are authorized. A comparable replacement dwelling will be made available to displaced persons. In the remote case that housing is not available at the time of relocation, "housing of last resort" will be found. Construction will not begin before adequate housing has been provided for all displaced persons. Relocation assistance and other resources are available to all displacees without discrimination.

**Impacts of the No Build Alternative** - The No Build Alternative would not require any additional right-of-way, impact utilities or railroad lines, or result in the relocation of residents or businesses in the area.

#### **4. Social Impacts**

**Impacts of the Preferred Alternative** - This proposed action will not have any significant impact on the location, distribution, density or growth rate of the area's population. The proposed action will not adversely affect any social or ethnic groups and it will not isolate or divide existing residential areas. This project will not create disproportionately high and adverse human health or environmental effects on minority and low income populations (**Executive Order No. 12898**).

This alternative will provide traffic safety benefits and more efficient facility for road users through the construction of a wider roadway and bridge and the enhancement of sight distance within the corridor. The wider road and bridge associated with the Preferred Alternative would improve safety for pedestrians and bicyclists on the roadway. When completed, the Preferred Alternative would result in the minor increases in the amount of vehicle travel on Trapper Creek Road by allowing previously restricted large trucks and service vehicles to cross the bridge.



The proposed action would indirectly benefit local school districts by improving the route used to transport students to area schools. Similarly, the improvement of this route may benefit the providers of emergency services by slightly reducing response times from Melrose to outlying areas.

**Impacts of the No Build Alternative** - This alternative would not require the acquisition of land and would not displace households, businesses, or other areas used for human activities. Taking no action would not influence population growth or distribution in and adjacent to the project area. Passenger cars, light trucks, and utility vehicles would continue to use the existing structure under the No Build Alternative.

## 5. Economic Impacts

**Impacts of the Preferred Alternative** - The most apparent economic impact of this alternative is the need to acquire new right-of-way from adjacent landowners. As indicated earlier, about 1.06 hectares (2.6 acres) of new right-of-way would be needed to construct the Preferred Alternative. Right-of-way acquisition would permanently remove much of this land from tax roles and taxes paid on the land would be lost to Butte-Silver Bow and Beaverhead Counties. This loss in property tax revenue would be expected to have a negligible effect on revenues for the Counties.

**Impacts of the No Build Alternative** - This alternative would not require any new right-of-way and would not displace any residents or businesses. However, the No Build Alternative offers no relief to identified deficiencies of the existing bridge.

## 6. Floodplains

Executive Order No. 11988 and FHWA's floodplain regulations (23 CFR 650, Subpart A) requires that the effects of the proposed action be evaluated to determine if any of its alternatives encroach on the "base" floodplain. The "base" floodplain is the area covered by water from the 100-year flood. The 100-year flood represents a flood event that has a 1% chance of being equaled or exceeded in any given year.

**FIGURE 5** shows the Big Hole River's floodplain in the project area as delineated on the Floodplain Boundary and Floodway Maps provided by the FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA). Butte-Silver Bow County administers this floodplain for FEMA, and a Floodplain Development Permit will be required for any encroachments into this regulatory floodplain due to the construction of this project.

The project area has not had a history of major problems associated with natural flooding since flood flows are generally contained within the banks of the Big Hole River. According to the *Flood Plain Management Study - Big Hole River, Silver Bow County, Montana* prepared by the USDA Soil Conservation Service in 1986, long-term records from a gaging station located between Melrose and Glen shows that the peak flow on this reach of the Big Hole occurred in 1927. Peak flows associated with this event were 23,000 cubic feet per second (cfs) and were due in part to the failure of an upstream dam. The next highest peak flow recorded at the gaging station was 14,300 cfs in 1972. Although high flows were recorded in 1972, no major flood damages were reported in newspapers.

Some differences in flood insurance is available in this community. Contact your insurance agent for details. Call the National Flood Insurance Program at (800) 638-6629.



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP  
**BUTE-SILVER**  
**BOW,**  
**MONTANA**

PANEL 420 OF 450  
SEE MAP INDEX FOR PANELS NOT PRINTED

OFFICE COPY

COMMUNITY PANEL NUMBER  
300077 0420 D

MAP REVISED:  
FEBRUARY 23, 1982



federal emergency management agency

KEY TO MAP

100 Year Flood Boundary

Zone B



100 Year Flood Boundary

Zone A

500 Year Flood Boundary

Zone A

Base Flood Elevation Zone

With Elevation in Feet\*\*

(Elev. 987)

RM7 X

\* M1 6

Elevation Reference Mark

Base Elevation

\*\* Referenced to the National Geodetic Vertical Datum of 1929

\*EXPLANATION OF ZONE DESIGNATIONS

- ZONE A: Areas of 100-year flood, base flood elevation, and flood hazard factor not determined.
- A0: Areas of 100-year flood, flooding where depths are between one (1) and three (3) feet average depth, and where depths are not uniform but no flood hazard factor is determined.
- AM: Areas of 100-year or less flooding where depths are between one (1) and three (3) feet, base flood elevation is determined, but no flood hazard factor is determined.
- ALX0: Areas of 100-year flood, base flood elevation, and flood hazard factor determined.
- A99: Areas of 100-year flood to be protected by flood hazard factor, but where base flood elevation, flood hazard factor, and flood hazard factor not determined.
- B: Areas between limits of the 100-year flood and 500-year flood, in certain areas subject to 100-year flood, the contribution of storm surge area is less than one square mile, or areas protected by levees higher than the base flood (Medium shading).
- C: Areas of minimal flooding (No shading).
- D: Areas of underment, but possible, flood hazards.
- V: Areas of 100-year coastal flood with velocity (wave action), base flood elevation, and flood hazard factor not determined.
- VI V20: Areas of 100-year coastal flood with velocity (wave action), base flood elevation, and flood hazard factor determined.

NOTES TO USER

Certain areas not in this special flood hazard areas (Zones A and VI) may be protected by flood control structures. This map is for flood insurance purposes only; it does not represent all planning features available for flood hazard areas. For additional map panels, see separately printed Index To Map Panel.

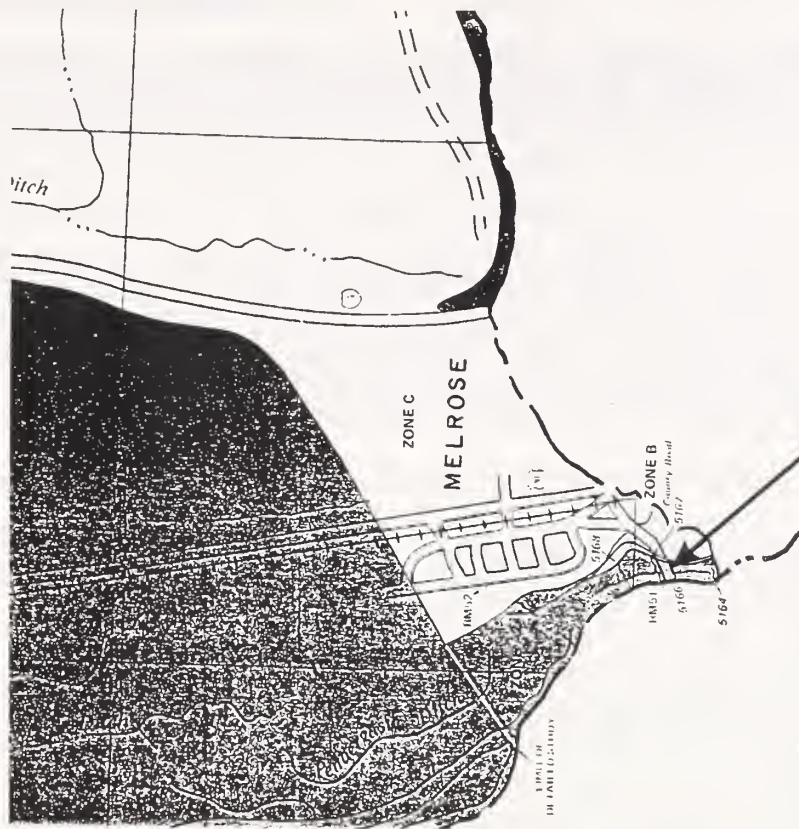
INITIAL IDENTIFICATION

JUNE 14 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS

APRIL 16 1978

AUGUST 8 1978



Existing Bridge

**Figure 5:**  
**Flood Hazard Boundary Map**  
**Melrose Area**



**Impacts of the Preferred Alternative** - MDT has not yet completed the hydraulic and floodplain analyses for the proposed crossing. However, the new bridge will be designed to ensure that any changes in the hydraulic characteristics and flood stage elevations of the Big Hole River are insignificant. **Executive Order No. 11988** and FHWA's floodplain regulations (23 CFR 650, Subpart A) requires that the effects of the proposed action be evaluated to determine if any of its alternatives encroach on the base floodplain. The Preferred Alternative would involve a transverse encroachment on the floodplain. However, the replacement of the structure on the Big Hole River will be designed in a manner that will not increase in water surface elevations over existing conditions for the 100-year flood event. MDT standard procedures and specifications will ensure that the required transverse encroachment will be in accordance with FHWA guidelines.

The proposed project would not promote or encourage development within this delineated floodplain, nor increase flood liability hazards from its construction. Therefore, this project is considered to be in compliance with **Executive Order No. 11988** and the proposed project's build alternatives meet the floodplain management criteria.

Butte-Silver Bow County administers the Big Hole River floodplain for FEMA, and a Floodplain Development Permit will be required for any encroachments into this floodplain related to the construction of this project.

**Impacts of the No Build Alternative** - This alternative would have no effect on designated floodplains in the project area. There are no risks of new flooding incurred, no impacts on natural and beneficial floodplain values, and no likelihood of incompatible floodplain development.

## 7. Erosion Control and Seeding

Construction of highway cuts and embankments, if left unattended, results in temporary erosion and siltation of the adjacent river. The replacement of the bridge, its piers, approach span pilings, new fills, and the construction of new approaches to the bridge will cause temporary soil surface disturbances and short-term siltation into the Big Hole River. Temporary erosion control measures like silt fences, will be employed to minimize and control siltation. Work in the river will be coordinated with the MDFWP.

An Erosion Control Plan will be submitted to the MDEQ Permitting and Compliance Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project. Best Management Practices will be used in the design of this Plan using Guidelines established in MDT's *Highway Construction Standard Erosion Control Workplan*. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

In accordance with **7-22-2152** and **60-2-208, M.C.A.**, MDT will reestablish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications will include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes include a variety of species to assure that areas disturbed by

construction are immediately stabilized by vegetative cover. The Seeding Special Provisions for this project will be forwarded to the Beaverhead and Butte-Silver Bow County Weed Boards for review.

## 8. Wetlands

A biological resource consultant delineated and evaluated wetlands in the vicinity of the proposed bridge replacement project west of Melrose during a field survey completed in December, 1995. Six individual wetland areas, all seasonally flooded and occurring along the river bank, were delineated by the survey. Four of the wetland sites are described as wetland grass/shrub types and two are wetland grass and forest deciduous types. Due to their location on moderately steep river banks, all of the wetlands are linear in shape and are frequently a meter (several feet) or less in width.

The wetlands affected by the proposed action are all riparian in nature and are often dominated by two plant species, reed canary-grass and streambank willow. Annual scourings of bank areas by high water and ice appears to inhibit the establishment of mature willow communities along some portions of the river at this location. Other vegetation found in the wetland sites includes curly dock, willows, and beaked sedge in a small overflow channel along the west bank of the river north of the proposed crossing. Wetlands lying west of the river are bordered by a scattering of mature black cottonwoods, especially in the area immediately north of the proposed crossing location. Upland ground cover in this area includes various willows, woods rose, western virgin's bower, gooseberry, and a few noxious weeds (Canada thistle and common tansy). Some drier areas along the banks contain bunch and wheatgrass, curly-cup gumweed, field pennycress, and mustard species.

**Impacts of the Preferred Alternative** - Approximately 0.017 hectares (0.04 acres) of low function and value wetland occurs within the delineated corridor potentially affected by the Preferred Alternative. The impacted wetlands sites, whether considered individually or collectively, afford only low function and value for wildlife due to their small size and lack of habitat diversity. The wetlands offer little value for flood control potential and sediment filtration when compared to other larger riparian wetlands associated with the Big Hole River. More valuable and extensive wetlands are found just east and west of the project.

Construction of the Preferred Alternative would impact an estimated 0.01 hectares (0.026 acres) of wetlands in the project corridor. This alternative would also require the removal of some 0.06 hectares (0.14 acres) of riparian cover in the vicinity of the west approach and abutment for the new bridge. However, this riparian cover is not located within any delineated wetlands sites.

The alignment of the Preferred Alternative was chosen to avoid and minimize impacts to wetlands while meeting the purpose and need of the project. No opportunities exist to replace wetlands on-site (within the right-of-way). Therefore, the amount of wetland area affected by the Preferred Alternative will be added to the MDT Wetland Ledger. The wetland lost will be replaced when a suitable mitigation site is identified by MDT and approved by the Montana Interagency Wetland Group. A private landowner, in cooperation with MDT, is developing a large replacement wetland area on the Beaverhead Gateway Ranch south of Twin Bridges. This wetland project will replace the amount and type of wetland impacted by this bridge replacement project. All proposed work affecting wetlands will be in accordance with **Executive Order No. 11990**.

**Impacts of the No Build Alternative** - The No Build Alternative would not impact wetlands.

## 9. Biological Resources

A Biological Resources Report was prepared for this proposed project by a biological resources consultant in April, 1996. This report identified the Preferred Alternative and the other build alternatives which were under consideration for the bridge replacement project at Melrose at that time. The report concluded that the impacts on biological resources were not substantially different for any of the build alternatives. The impacts of the proposed projects on biological resources in the project area are summarized below.

### a) Threatened/Endangered Species

The Biological Resources Report identifies Federally-listed Threatened/Endangered (T/E) species in the vicinity of the Big Hole River crossing at Melrose in accordance with *Section 7(a)* of the *Endangered Species Act (16 U.S.C. 1531-1543)*. The U.S. FISH AND WILDLIFE SERVICE (USFWS) has listed twelve species in Montana which are considered as either threatened or endangered. Endangered species include the gray wolf, peregrine falcon, whooping crane, black footed ferret, Interior least tern, pallid sturgeon, and white sturgeon. The grizzly bear, bald eagle, piping plover, water howellia and Ute ladies' tress orchid, are listed as threatened species.

**Impacts of the Preferred Alternative** - The Interior least tern, blackfooted ferret, whooping crane, piping plover, pallid sturgeon, white sturgeon, water howellia, and Ute ladies' tress orchid or their habitat does not occur in the project area. The gray wolf and the grizzly bear occur with such extreme infrequency in the project area that no impacts to the species are likely. For these reasons, it was concluded that the Preferred Alternative will have **NO EFFECT** on these T/E species.

The bald eagle and peregrine falcon are known to occur in the project area. Although these raptors most commonly occur in the area as migrants and winter visitors, a nest site for bald eagles is located some 16 km (10 miles) south of the project area and areas north of Melrose are known to have served as historic eyries for peregrine falcons. Since neither of these species will be significantly affected by the build alternatives, it was concluded that implementation of the Preferred Alternative is **NOT LIKELY TO ADVERSELY AFFECT** the bald eagle or peregrine falcon.

This conclusion was made since several conservation measures are under consideration by MDT's road and bridge designers that will minimize or avoid effects on bald eagles and peregrine falcons. These measures include: raptor-proofing relocated power poles; avoiding and minimizing impacts on mature cottonwood trees and associated riparian habitats; and controlling weeds to avoid weed spread and introduction.

**Impacts of the No Build Alternative** - The No Build Alternative would not impact any T/E species.

### b) Fisheries

The Montana Arctic grayling and the westslope cutthroat trout, species of special concern in



Montana, occur in the Big Hole River, although they are rarely found in the project area. Common species of fish present in this reach of the Big Hole River include mountain whitefish, brown trout, rainbow trout, mottled sculpin, longnose sucker, and white sucker. Other species that may be present, but in lesser numbers, include brook trout, burbot, longnose dace, mountain sucker, and carp. Like the Arctic grayling, cutthroat trout occur, but are rarely found in this reach of the Big Hole River.

Angler use of the lower Big Hole River is high since the project area lies within an 89.8 km (55.8 mile) reach of the river classified as one of Montana's "blue ribbon" trout fisheries. The river's annual hatches of "salmon flies" are nationally known. Data from the MDFWP showed that during the 1977 season, nearly 5,400 anglers fished the Big Hole River between Melrose and Glen. However, this figure is probably much lower than presently occurs since the MDFWP shows that angler use of the lower river (from the old Divide Dam to mouth) increased from about 13,500 days in 1982 to more than 27,500 days during 1991.

**Impacts of the Preferred Alternative** - The impacts of this alternative on fisheries would be minor. The most notable direct impact to local fisheries would be the removal of riparian vegetation at the locations of the new bridge abutments. Temporary increases in suspended sediments are also likely during construction of a supporting pier in the channel. Indirect impacts, like sediment deposition downstream from the bridge pier, could occur.

To minimize potential impacts on fisheries, work in the stream channel will be coordinated with the MDFWP. The timing of work in the channel and other restrictions will be indicated as conditions of approval for the issuance of a *124SPA* Stream Protection Permit from the MDFWP.

**Impacts of the No Build Alternative** - This alternative would have no impact on fisheries in the project area.

### **c) Rare and Sensitive Plants**

Two sensitive plant species were identified in the general area of the project by the MONTANA NATURAL HERITAGE PROGRAM (MNHP). These species include least Muhly and broad-keeled milk-vetch. The MNHP indicated that milk-vetch has been recorded about one-half mile from the project area. This plant has been assigned a state rank of "S1", which means it is critically imperiled because of its extreme rarity (less than five statewide occurrences). Least Muhly has an assigned state rank of "SU," meaning the species is possibly in peril and additional information is needed to resolve its uncertain status.

Neither of these sensitive plant species were observed within the immediate area of this proposed bridge replacement project by biological resource consultants. Contacts with personnel from other agencies showed that these species were not known to occur within the project area. Due to previous disturbances of the area for the construction of the road and bridge, residences, and fishing access site, it is unlikely that suitable habitats for sensitive plants exist in the immediate project area.

Therefore, neither of these sensitive plant species would be affected by the Preferred Alternative or

the No Build Alternative.

#### **d) Sensitive Wildlife**

Several sensitive wildlife species are known to occur in the general vicinity of this project and it is likely such species occasionally pass through the project area. However, there are no documented resident locations for such species in the vicinity of the Big Hole River bridge west of Melrose. For this reason, neither the Preferred Alternative nor the No Build Alternative would affect sensitive wildlife species.

### **10. Cultural, Archaeological/Historical Resources**

MDT performed cultural resource surveys in the vicinity of the proposed river crossing in April, 1993 and in March, 1996. The surveys identified two properties eligible for the National Register of Historic Places (NHRP) within the project area, the existing Big Hole River Bridge (24BE1803/24SB588) and the William Bowe Ranch (24SB585). These cultural resources and potential impacts from the Preferred Alternative and the No Build Alternative are discussed below.

#### **a) Big Hole River Bridge (24BE1803/24SB588)**

The existing Big Hole River Bridge (24BE1803/24SB588) west of Melrose is a two-span Warren pony truss built in about 1915. The bridge is 61 meters (200 feet) in length and 4.6 meters (15 feet) wide. The one-lane structure rests on concrete abutments and a concrete pier. The existing structure was modified several years ago through the placement of a new concrete deck over the original bridge deck. In August, 1996, MDT determined that the existing structure (24BE1803/24SB588) was eligible for the NRHP.

**Impacts of the Preferred Alternative** - The Preferred Alternative would affect this historic bridge since the structure would be removed from its present locations following the construction of the new bridge west of Melrose. The Highway Bridge Replacement and Rehabilitation Program for Historic Bridge Preservation requires states proposing the demolition of historic bridges as part of a replacement project (under **23 U.S.C. 144(o)(4)**, as amended) to make the bridges available for donation to a state or local entity or to a responsible private entity. As a condition of this donation, the agency or private entity must: 1) enter into an agreement to maintain the bridges and features that preserve their historical significance; and 2) assume all future legal and financial responsibilities for the structures, including an agreement to hold the state's transportation agency harmless in any liability action.

The costs incurred by the agency or entity to preserve historic bridges are eligible for reimbursement up to the estimated cost of demolition for the structures. MDT has already issued a notice for preservation of the bridge at Melrose in compliance with this Historic Bridge Preservation Program. MDT also advertised the bridge for adoption for 45 days beginning in February, 1998 in an effort to find a new owner for the bridge. If no one agrees to accept the bridge and neither Butte-Silver Bow or Beaverhead County want to salvage the bridge, the structure can be demolished by the contractor. In such a case, MDT will photodocument the bridge prior to the demolition of the



structure and prepare a written report detailing its history.

In September, 1996, MDT drafted a Determination of Effect that concluded the Preferred Alternative action would have **NO ADVERSE EFFECT** on the existing bridge since a landowner in the area appears interested in reusing the structure. The SHPO concurred with this Determination of Effect in correspondence dated September 30, 1996 (included in APPENDIX B).

Federally-funded actions affecting historic bridges that are on, or considered as eligible for the NRHP also must comply with *Section 4(f)* of the U.S. DEPARTMENT OF TRANSPORTATION Act of 1966, as amended (**49 U.S.C. 303**). This compliance is discussed later in Part IV.

**Impacts of the No Build Alternative** - The No Build Alternative would not affect the existing bridge over the Big Hole River west of Melrose.

#### **b) William Bowe Ranch (24SB585)**

This NRHP-eligible site consists of one residence and twenty-one log and wood frame outbuildings built between 1875 and 1991. The William Bowe Ranch is located on the Melrose side of the Big Hole River immediately north and south of the county road on the east approach to the bridge. All but four of the twenty-two buildings on the site are associated with the historic function of the property as a stage station and ranch.

**Impacts of the Preferred Alternative** - The Preferred Alternative would pass directly through the portion of the ranch lying to the north of the existing county road and directly effect eight of the buildings on the property. The portion of the site located south of Trapper Creek Road will not be impacted by the Preferred Alternative. MDT and the FHWA notified the Advisory Council on Historic Preservation (ACHP) in May, 1996 that the Preferred Alternative will have an **ADVERSE EFFECT** on the William Bowe Ranch. A copy of the ACHP's response to this notification is included in APPENDIX B.

A Determination of Effect for the Preferred Alternative was written by MDT in September, 1996. This determination concluded that the favored alternative would have an **ADVERSE EFFECT** on the William Bowe Ranch. The SHPO concurred with MDT's Determination of Effect for 24SB585 on September 30, 1996.

A Memorandum of Agreement (MOA) regarding this proposed mitigation was approved by FHWA, SHPO, and the ACHP in January, 1997. A copy of the MOA can be found in APPENDIX E. Mitigation for impacts to the historic ranch specified in the MOA includes: recording the property in a manner acceptable to the Historic American Building Survey/Historic American Engineering Record (HABS/HAER); relocating affected buildings from the proposed alignment to positions similar to their present orientation; assisting the landowner in listing the property on the NRHP; and installing an interpretive marker describing the history of the ranch at the adjacent Salmon Fly FAS. Impacts to the William Bowe Ranch and proposed mitigation for the impacts are discussed further in Part VI of this document.

**Impacts of the No Build Alternative** - The No Build Alternative would not affect the William Bowe Ranch property.

## 11. Air Quality

This proposed bridge replacement project is located in an "unclassifiable" attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, the project is not covered under the U.S. ENVIRONMENTAL PROTECTION AGENCY's (EPA's) **Final Rule** of November 24, 1993 on Air Quality conformity. Therefore, the proposed project complies with *Section 176(c)* of the *Clean Air Act* (**42 U.S.C. 7521(a)**), as amended.

Projects like this bridge replacement are actions whose individual and cumulative effects would be minor and would not effect regional emissions. These conclusions can be reasonably made on the basis of analyses done for many similar projects across the country. For these reasons, neither the Preferred Alternative nor the No Build Alternative would be expected to result in adverse air quality impacts.

## 12. Noise

This project involves reconstruction of a bridge and its approaches with very minor changes in horizontal alignment. The project will increase the number of through traffic lanes on the new structure but not on the approaches to the bridge. Due to the nature of this project and its rural location, a detailed noise analysis is not required. Design Year noise levels will not exceed the Noise Abatement Criteria 23 CFR 772. Traffic noise level increases will be insignificant with the construction of the Preferred Alternative and with the No Build Alternative.

## 13. Hazardous Substances

An Initial Site Assessment (ISA) for hazardous substances or hazardous wastes was prepared by an environmental engineering consultant in January, 1996. The work done during the preparation of the ISA included a site reconnaissance, interviews with personnel from regulatory agencies, and a review of Federal and State regulatory files on hazardous waste sites and generators to identify potential environmental problems.

No evidence of any leaks, spills, or hazardous substances or petroleum products was noted during visits to the project area. There was also no evidence of any underground storage tanks in the immediate vicinity of this project. Above ground storage tanks containing diesel fuel and barrels containing solid waste were identified on the property located east of existing bridge and north of the present roadway.

**Impacts of the Preferred Alternative** - The construction of the Preferred Alternative may encounter above ground storage tanks containing diesel fuel and barrels containing solid waste on the ranch property located north and east of the existing bridge.

The steel members of the existing bridge contain remnants of lead-based paint. The lead-based paint

on the existing bridge is not considered to be a hazardous waste until the paint is removed. No substantial impacts from lead paint are anticipated since the bridge will either be reused at another location or demolished. If the structure is reused, the new owner will assume all liability for the bridge.

As a condition of the implementing any of the Preferred Alternative, the Contractor will be required to take precautions to minimize the effects of construction operations, and to prevent leakage or spilling of fluids from construction equipment.

**Impacts of the No Build Alternative** - This alternative would have no impacts on hazardous waste sites, generators, or substances.

#### **14. Section 4(f) of the U.S. DEPARTMENT OF TRANSPORTATION Act**

As indicated earlier in this Part, the proposed bridge replacement project is subject to the provisions of *Section 4(f)* of the U.S. DEPARTMENT OF TRANSPORTATION Act, as amended. These provisions apply to Federally-funded transportation actions that affect sites on or eligible for the NRHP, publicly-owned parks, recreation lands, and wildlife and waterfowl refuges.

The proposed action would not impact any public parks, or wildlife or waterfowl refuges. However, the bridge replacement will affect the existing Big Hole River Bridge and the William Bowe Ranch (NRHP-eligible properties) and the Salmon Fly FAS (a public recreation site). Coordination with the MDFWP, the administrator of the FAS, stated that this public recreation site is significant for *Section 4(f)* purposes.

**Impacts of the Preferred Alternative** - This alternative would affect the existing Big Hole River Bridge (24BE1803/24SB588) since the structure would be removed following construction of the new crossing. The old bridge will be advertised for adoption and reused at another location if a new owner is found for the structure. If a new owner is not found, the bridge will be demolished.

The Preferred Alternative would cause notable impacts on the William Bowe Ranch. The proposed alignment would pass directly through the portion of the ranch lying to the north of the existing county road and would impact eight NRHP-eligible buildings on the property. MDT determined that this impact would have an adverse effect on the William Bowe Ranch.

The Preferred Alternative would impact the Salmon Fly FAS since 0.6 hectares (0.16 acres) of new right-of-way must be acquired along the north edge of the FAS property to accommodate reconstruction of the west approach to the proposed bridge. There would be no change in the access or public use of the recreation site.

The effects of the proposed action on these *Section 4(f)* properties and measures to mitigate identified impacts are discussed in Part V of this document.

**Impacts of the No Build Alternative** - This alternative would not affect any sites on or eligible for the NRHP, publicly-owned parks, recreation lands, or wildlife and waterfowl refuges.



## 15. Section 6(f) of the NATIONAL LAND & WATER CONSERVATION FUND Act

Section 6(f) of the *National Land & Water Conservation Fund Act* (16 U.S.C. 460) requires that coordination be undertaken to determine if federal funds were used to acquire or improve any lands in the project area for recreation or water conservation purposes. The National Park Service has designated the MDFWP as the agency responsible for administering the Land and Water Conservation Fund program at the state level in Montana. Coordination with the MDFWP indicates that the Salmon Fly FAS was partially developed with money from the Land and Water Conservation Fund. Correspondence from the MDFWP regarding this Section 6(f) involvement is included in APPENDIX B.

**Impacts of the Preferred Alternative** - The potential impacts of the proposed action on the Section 6(f) property at the Salmon Fly FAS are similar to those described previously in 10. **Section 4(f) of the U.S. DEPARTMENT OF TRANSPORTATION Act**. Based on current design plans, about 0.16 hectares (0.39 acres) along the northern edge of the FAS must be acquired for right-of-way to construct of the west approach to the proposed bridge.

As mitigation for using Section 6(f) land from the Salmon Fly FAS, MDT must provide replacement land of reasonably equivalent usefulness and location and of at least comparable value. This proposed project, as well as MDT's Silver Star North & South, Southeast of Ennis, Four Corners-West, and Riceville Hill projects will cause minor impacts at other MDFWP fishing access sites acquired or developed with Section 6(f) funds.

The area of impact at each of these sites is minor, typically 0.2 hectares (0.5 acres) or less. Finding and acquiring small replacement areas in the vicinity of each impacted 6(f) site may be difficult and such areas may be of limited usefulness to the MDFWP. Therefore, MDT is pursuing the purchase of an 11.7 hectare (29.0 acre) parcel of replacement land adjacent to Lewis and Clark Caverns in Jefferson County for a new fishing access or recreational site. This purchase would be used to mitigate the impacts of MDT highway projects on the Salmon Fly FAS and the other affected 6(f) sites identified above. This proposed mitigation has been discussed with the MDFWP and is acceptable to the agency. Attached in APPENDIX B is correspondence with MDFWP dated April 15, 1998 and April 27, 1998 documenting MDT's mitigation efforts.

As a first step in implementing this mitigation, MDT has appraised the 6(f) lands impacted by the highway projects and established reasonable values for each property. The appraised value of impacted lands at 6(f) sites will be submitted to MDFWP for review and acceptance.

**Impacts of the No Build Alternative** - The No Build Alternative would not affect lands acquired or developed with Section 6(f) funds.

## 16. Visual Impacts

The project area is situated in the southern portion of the Big Hole River Valley. This portion of the valley is bordered by the Pioneer Mountains to the West and the Highland Mountains to the north and east. The terrain of Big Hole River Valley bottom near Melrose is flat to rolling and is divided

into numerous residential and agricultural parcels.

Within the area of the existing Big Hole River crossing, the dominant man-made features include residences with yards in the community of Melrose, several rural residences on larger parcels, and the Salmon Fly FAS. Natural features in the project area consist primarily of native grasses, large deciduous trees and other riparian vegetation associated with the Big Hole River, and the river itself. Because of the nature of the project area, the viewshed (the land area seen from the project) is dominated by background landscapes (the surrounding mountains) and foreground landscapes (residential areas, corrals, buildings associated with livestock raising, and the riparian corridor associated with the Big Hole River).

The major viewer groups that see the existing facility and those who will see the completed project include residents in the immediate area of the river crossing, recreational users of the Big Hole River and Salmon Fly FAS, and those traveling through the area (mostly local residents) on Trapper Creek Road. Views from the road are seen by the users of the existing facility including area residents traveling between Melrose and residences or ranches west of town, and travelers passing through the project area on their way to the Salmon Fly FAS or dispersed recreation sites in the Beaverhead National Forest. Occasionally, bicyclists and pedestrians may be present on the roadway.

**Impacts of the Preferred Alternative** - The Preferred Alternative would not alter views of the background landscape in the project area. However, this alternative would cause minor changes to the foreground landscape of the project corridor for users of the facility. The east approach to the new bridge would be located on an alignment that would eliminate a curve and the road would be somewhat closer to residences on the edge of the community. The width of the new road and bridge would be substantially greater than that of the existing facility due to its increased road surface area and expanded right-of-way and clear zone.

The proposed alignment of the east approach to the new bridge would also pass directly through a historic ranch and affect several buildings on the property. As mitigation for this impact, MDT will move affected buildings to alternate locations on the property. This shift in building locations would cause minor changes in the view of the road for the residents of the ranch property and would alter the view from the road for road users on the east approach to the new bridge.

The potential visual impacts of the project will be mitigated by the construction of uniform and smooth cut and fill slopes shaped to blend with the surrounding terrain. Roadside slopes will be promptly revegetated with desirable plants to control erosion and inhibit invasion by noxious weeds.

The Preferred Alternative would result in minor, short-term visual impacts during the period of construction including vegetation clearing until revegetation occurs; the stockpiling excavated material, equipment, and material; and dust and debris from construction activities.

**Impacts of the No Build Alternative** - There would be no visual impacts associated with the No Build Alternative.



## 17. Secondary and Cumulative Impacts

Secondary (or indirect) effects are those that are caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable. Secondary impacts are generally induced by the initial action and comprise a wide variety of effects such as, changes in land use, water quality, economic conditions, or population density. The secondary impacts of this proposed project are addressed in appropriate sections of this Part.

Cumulative impacts are those effects which result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions regardless of what agency (federal or non-federal) undertakes such actions.

Projects planned, under construction, or recently completed by MDT and local governments in the vicinity were reviewed to help assess the cumulative impacts of this project. This review showed that there are no other known projects in the vicinity of this proposed bridge replacement project. Therefore, the cumulative effects from this project appear to be negligible. This conclusion was reached because the timing of construction activities for the proposed action will not coincide with other projects and because there are no other proposed projects in the vicinity of this bridge replacement.

## 18. Construction Impacts

**Impacts of the Preferred Alternative** - Bridge and road construction activities associated with the Preferred Alternative would cause temporary inconveniences to the traveling public and to recreationists on the Big Hole River. These disturbances include longer travel times, detours, temporary closures of the road and/or bridge, and the noise and dust generated by construction equipment. These impacts can be expected to occur for between six months to one year after the proposed construction begins. Few disruptions to traffic are anticipated during construction since the existing bridge and road would be used as a detour route.

The Contractor will be subject to all state and local laws to minimize construction noise by having mufflers on all equipment. Dust generated through construction activities and road use will be controlled by the required use of either water or another approved dust suppressant. All work related to the Preferred Alternative for the Big Hole River bridge project will be subject to Article 107.12 ENVIRONMENTAL PROTECTION under the Montana Supplemental Specifications to the 1987 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION as adopted by the former MDOH and the former Montana State Highway Commission (now known as the Montana Transportation Commission).

Traffic control plans will be prepared by MDT and included in the contract plans and specifications for the Preferred Alternative. These plans may include signing provisions; weekend and holiday work period designations; timing of any anticipated road or bridge closures; limitation of work during the winter; and advance notification and advertisement of any extended road or bridge closures.

Construction of the Big Hole River bridge at Melrose may create jobs and the need for local goods and services. This could result in short-term economic benefits to Melrose and the surrounding county area. Completion of this project will not cause any long-term changes in the area's economy.

**Impacts of the No Build Alternative** - The only construction impacts associated with this alternative would be related to the completion of maintenance activities on the existing road and bridge.

## 19. Permits Required

The No Build Alternative would not require any permits. However, the Preferred Alternative for the proposed Big Hole River bridge replacement project at Melrose will require the following permits to be obtained prior to any relevant disturbances:

- **Section 3(a) Authorization/I24SPA** - This proposed project will be in compliance with the provisions of both Water Quality for *Section 3(a)* authorizations under **75-5-401 (2) M.C.A.** and Stream Protection under **(87-5-501 through 509 M.C.A., inclusive)**.

A *I24SPA* Stream Protection Permit is required by the Montana Department of Fish, Wildlife & Parks (MDFWP). The *I24SPA* permit was authorized by MDFWP on April 7, 1998.

All work will also be in accordance with the *Water Quality Act of 1987 (P.L. 100-4)*, as amended.

- **Section 402 Permit** - This proposed project will require a *Clean Water Act (33 U.S.C. 1251 - 1376)* - *Section 402*/Montana Pollutant Discharge Elimination System Permit from the MDEQ Permitting and Compliance Division.
- **Section 404 Permit** - A *Clean Water Act (33 U.S.C. 1251 - 1376)* - *Section 404* permit from the U.S. Army Corps of Engineers (COE) will be required for placing fill in wetlands or for the discharge of dredged or fill material associated with bridge and pier construction or bank stabilization. The COE will be notified that this proposed project qualifies for a "Nationwide" permit under the provisions of 33 CFR 330.
- **Floodplain Development Permit** - A FEMA floodplain development permit, administered by Butte-Silver Bow County will be required for work within the delineated 100-year floodplain of the Big Hole River.

The Area Manager of the Southwestern Land Office of the MDNRC was contacted to determine if the Big Hole River is considered navigable in the Melrose area. The MDNRC indicated that the State of Montana does not claim navigability in this reach of the Big Hole River and the agency would not be involved in the permitting for the crossing.



## V. Draft *Section 4(f)* Evaluation





## V. DRAFT *Section 4(f)* EVALUATION

According to 23 CFR 771.135(a) “The Administration may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge or any significant historic site unless a determination is made that:

- (i) There is no feasible and prudent alternative to the use of land from the property; and
- (ii) The action includes all possible planning to minimize harm to the property resulting from such use.”

The purpose of this *Section 4(f)* Evaluation is to identify affected and potentially affected properties, assess the impacts of the Preferred Alternative on the properties, and to demonstrate that the proposed bridge replacement project complies with the requirements of *Section 4(f)* of the U.S. DEPARTMENT OF TRANSPORTATION Act (**49 U.S.C. 303**), as amended.

### A. *Section 4(f)* Properties

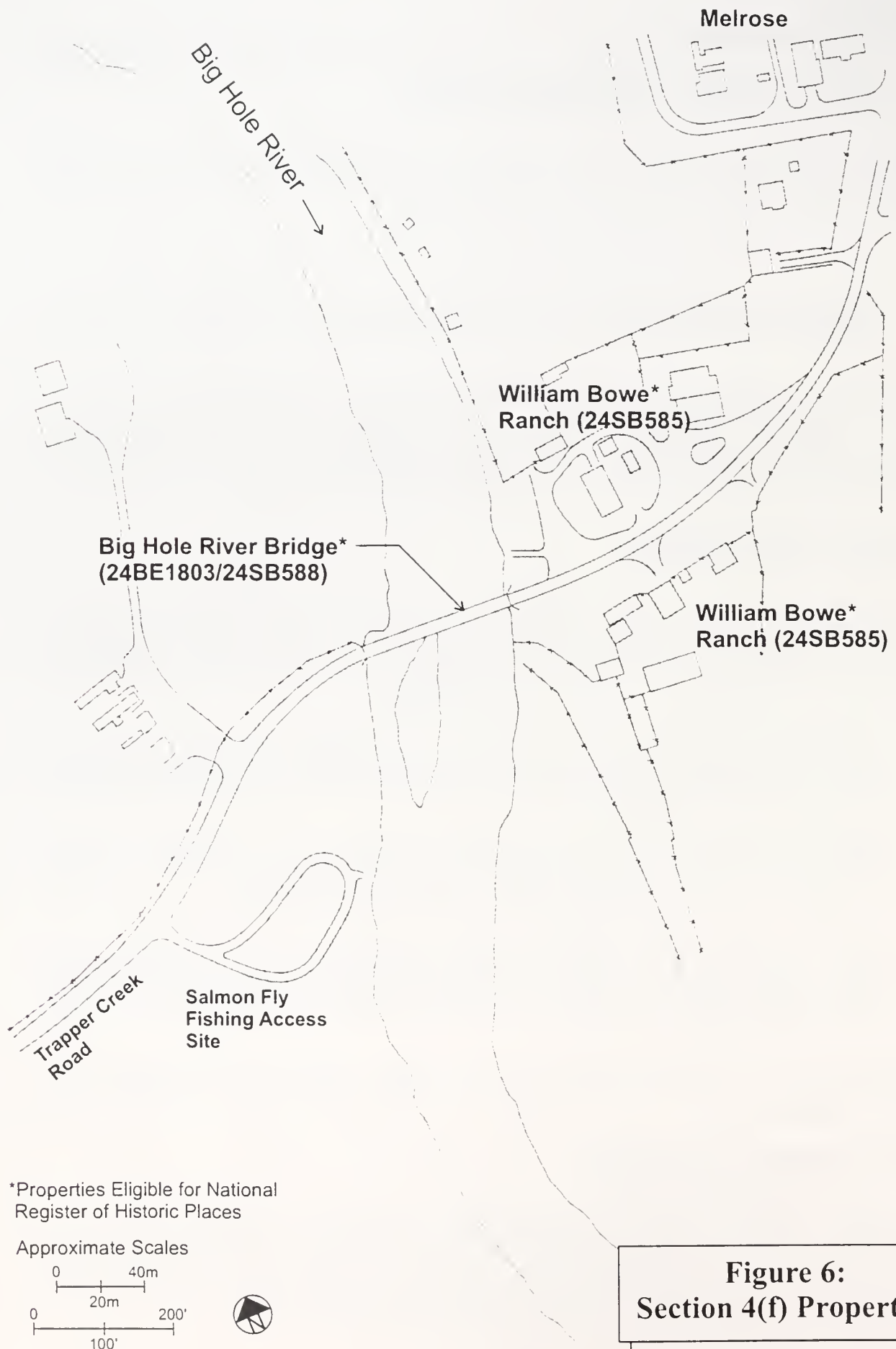
The project area contains three properties which were examined for their applicability to *Section 4(f)*. Cultural resource evaluations and contacts with the administrators of public recreation lands served as the basis for determining if these properties are subject to *Section 4(f)*. Properties considered in this evaluation are identified below and shown in **FIGURE 6**:

- ❖ The Salmon Fly Fishing Access Site (FAS) on the Big Hole River located just west of Melrose. The MDFWP Parks Division has determined that the fishing access site is a significant public recreation site.
- ❖ The existing Big Hole River bridge west of Melrose identified as site (24BE1803/24SB588). This bridge was determined eligible for the NRHP by MDT in 1996.
- ❖ The William Bowe Ranch (24SB585) located immediately east of the existing bridge at Melrose. All but four of the twenty-two buildings on the site are associated with the historic function of the property as a stage station and ranch. The site was determined to be eligible for the NRHP by MDT in 1996.

The proposed action will affect all of these *Section 4(f)* properties. Each property is described further in the following paragraphs.

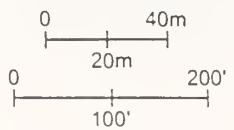
#### 1. Salmon Fly Fishing Access Site

a) **Site Map** - **FIGURE 7** shows the location, property boundaries, and layout of the FAS in relation to the existing county road (Trapper Creek Road) and the Big Hole River bridge west of Melrose. The FAS is located in the NW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> of Section 35, Township-2-North, Range-9-West M.P.M. The site is located entirely within Beaverhead County, Montana.



\*Properties Eligible for National Register of Historic Places

Approximate Scales



**Figure 6:  
Section 4(f) Properties**

**b) Size of the Affected Property** - The Salmon Fly FAS consists of 4.96 hectares (12.27 acres) of land on the west bank of the main channel of the Big Hole River. A survey plat showing the boundaries of the property and a legal description is included in APPENDIX E of this document.

**c) Ownership** - The property for the Salmon Fly FAS was acquired from Iver J. and Hazel M. Lattin in 1985 by the MDFWP.

**d) Function of or Available Activities** - The property is a public fishing access site on the Big Hole River that provides river access for floaters or shore fishermen. Limited camping and parking spaces for angler vehicles are also available within the site. Photographs of the FAS are presented in **PLATE 2**.

**e) Description and Location of Existing Facilities** - Facilities present at the Salmon Fly FAS include a boat ramp, toilet, and parking areas for single vehicles and vehicles with trailers.

**f) Access and Usage** - The Salmon Fly FAS can be accessed by traveling west from the southern end of the community of Melrose on Trapper Creek Road for about 0.4 km (0.25 miles). The main access to the FAS is located on the south side of Trapper Creek Road.

Angler use of the Big Hole River in the vicinity of the Salmon Fly FAS is high. Data from a 1979 study of fishing activity on the 10-mile reach of the Big Hole River between Melrose and Glen showed that an estimated 5,379 and 3,978 anglers fished this reach during the 1977 and 1978 seasons, respectively. More recent figures show that substantially higher numbers of anglers now recreate on this reach of the Big Hole River.

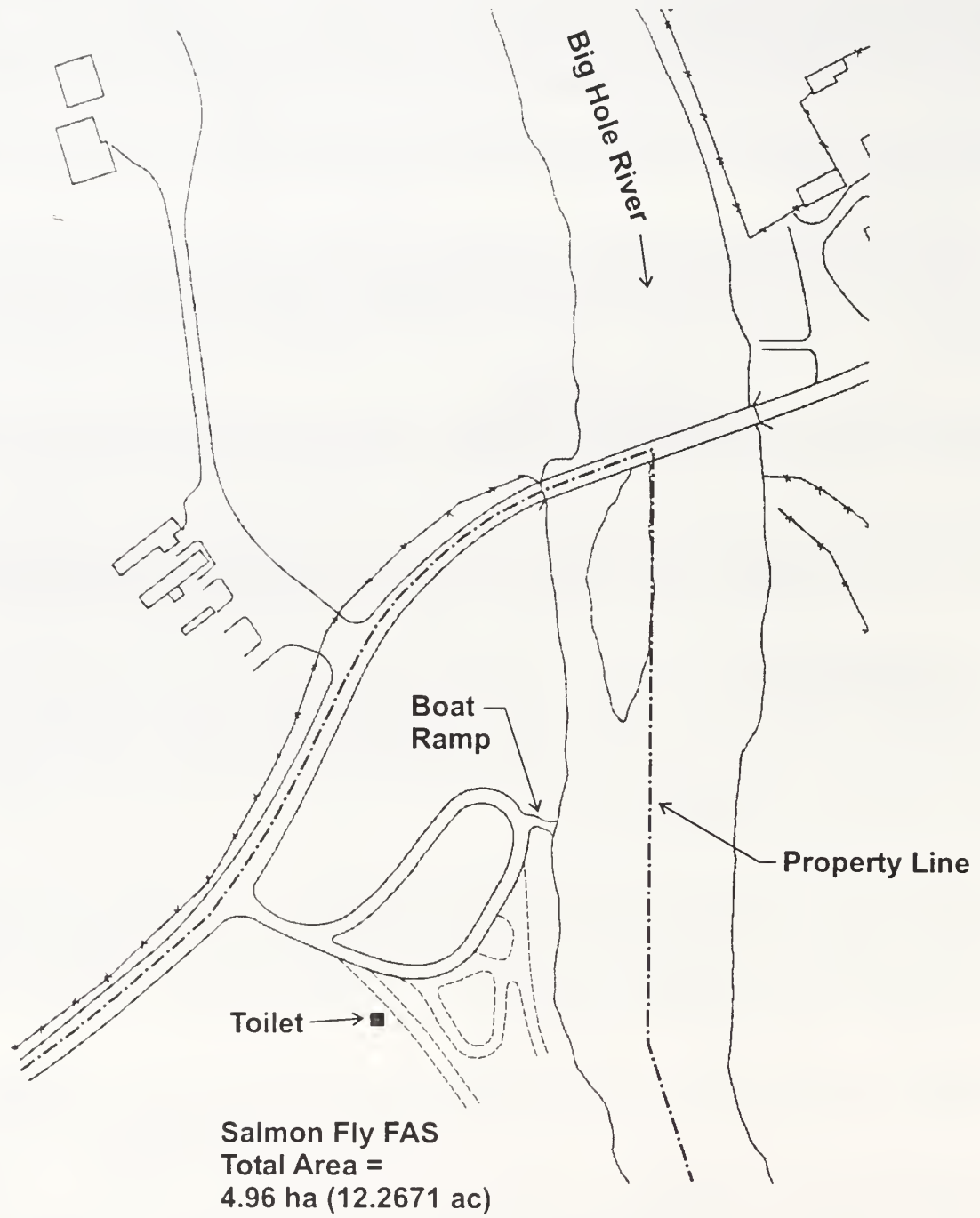
According recreational use data maintained from the Montana River Information System, fishing activity on the lower river (from the old Divide Dam to the mouth) has increased from 13,474 angler days in 1982 to more than 27,500 angler days during 1991. This reach of the Big Hole is classified as one of Montana's top "blue ribbon" trout fisheries, and its annual hatches of salmon flies during the late spring and early summer are well known.

The MDFWP maintains a traffic counter at the Salmon Fly FAS to monitor use of the recreation site. Based on this data, the agency estimates that about 22,000 people currently use the FAS each year.

**g) Relationship to Other Similarly Used Lands** - The Salmon Fly FAS is one of several MDFWP fishing access sites that exist on the Big Hole River between Divide and Glen. Other public fishing access sites in the area include the White Gates, Maiden Rock, and Glen.

**h) Applicable Clauses Affecting Ownership** - The Salmon Fly FAS was developed with the assistance of federal money through *Section 6(f)* of the *Land and Water Conservation Fund Act (16 U.S.C. 460)*.

**i) Unusual Characteristics of Property** - There are no unusual characteristics to the property that enhance or reduce its value to the public.



Not To Scale



**Figure 7:**  
**Layout of Salmon Fly FAS**



## Plate 2: Photographs of Salmon Fly FAS



Looking West Across FAS



Looking Northeast at Bridge near Boat Ramp

## 2. Big Hole River Bridge (24BE1803/24SB588)

The existing Big Hole River Bridge (24BE1803/24SB588) west of Melrose is a two-span Warren pony truss built in about 1915. The bridge is 61 meters (200 feet) in length and 4.6 meters (15 feet) wide. The one-lane structure rests on concrete abutments and a concrete pier. The existing structure was modified several years ago through the placement of a new concrete deck over the original bridge deck. Photographs of the structure are provided in **PLATE 1** in Part I of the Environmental Assessment.

## 3. William Bowe Ranch (24SB585)

The William Bowe Ranch (24SB585) is located in the NE $\frac{1}{4}$  NW $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 35, Township-2-South, Range-9-West, P.M.M. The site exists on lands adjoining the east end of the Big Hole River bridge at the southwest edge of Melrose. The site, presently owned by Dale Carpenter of Melrose, consists of one residence and twenty-one log and wood frame outbuildings built between about 1875 and 1991. Approximately 40% of the buildings on the property are of log construction and date to the period between 1875 and 1881 when the site operated as a stage station. With the exception of four recent buildings, all other structures on the property appear to have been constructed between 1887 and the 1920s. **FIGURE 8** shows the layout of the existing features of 24SB585.

This site has NRHP significance since it is associated with the late 19th and early 20th century development of the lower Big Hole River Valley (including the arrival of the Utah & Northern Railroad in 1881). Additionally, the buildings on the property retain considerable integrity and still reflect the original lay-out of the site. The site also has significance since William Bowe was one of the founders of Melrose and helped plat a substantial portion of the community.

**PLATES 3** and **4** present photographs of representative structures on the William Bowe Ranch.

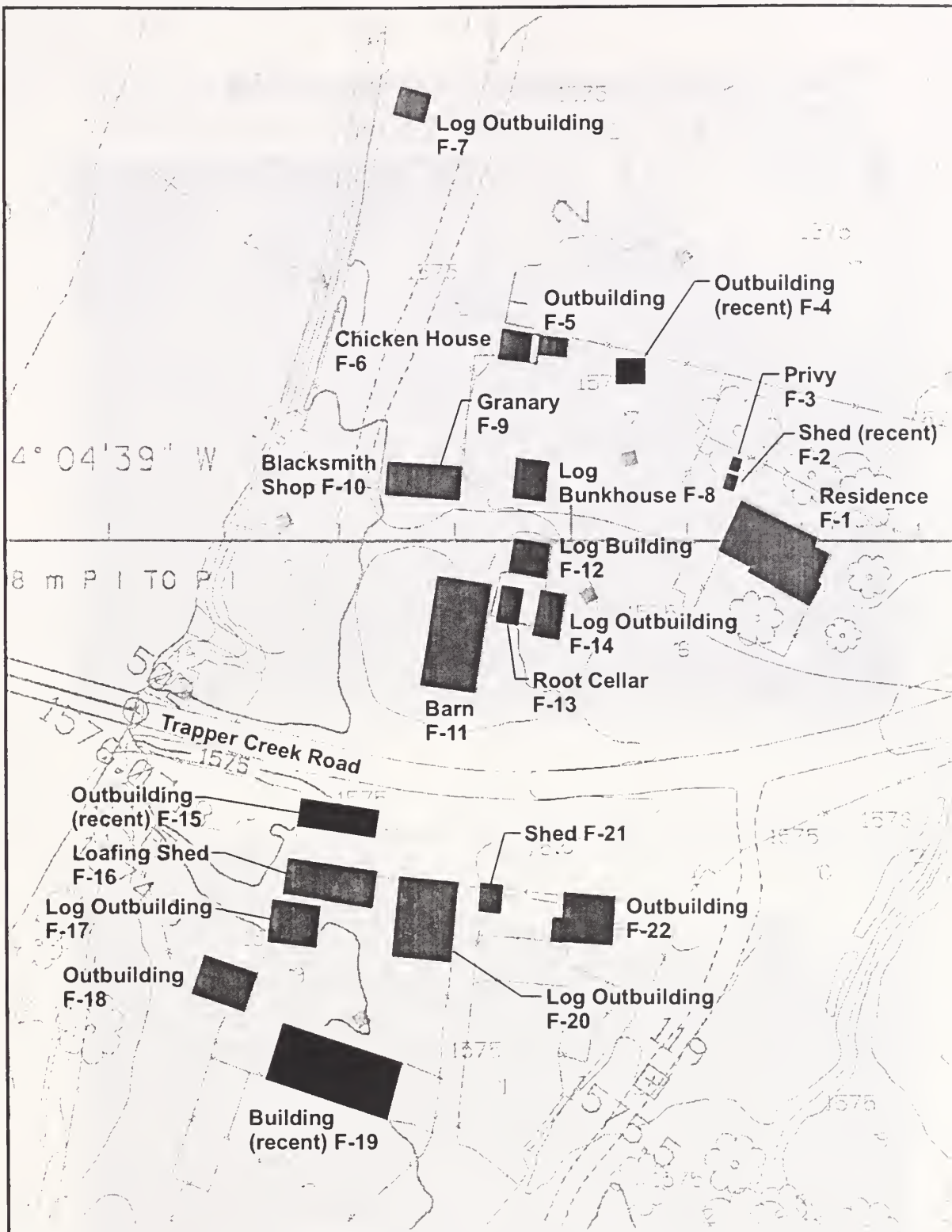
## B. Impacts on Section 4(f) Properties

This section describes the potential impacts of the Preferred Alternative on *Section 4(f)* properties in the project area. This alternative would construct a new bridge just upstream from the existing structure and rebuild the east and west approaches to the new Big Hole River crossing.

### 1. Impacts on the Salmon Fly FAS

The legal description and drawing of the land encompassing the Salmon Fly FAS show the northern boundary of the property follows the centerline of the existing county road. New right-of-way will be needed along the northern edge of the recreation site to accommodate reconstruction of the west approach to the proposed bridge. Based on MDT's current design for the west approach, the required right-of-way line will be about 12 to 15 meters (40 to 50 feet) from the centerline of the roadway. The new right-of-way line will be in nearly the same location as the existing perimeter fence in this area of the FAS. The total amount of new right-of-way needed from the FAS is about 0.06 hectares (0.16 acres) or 1.3% of the total land area comprising the FAS.





**Figure 8:**  
**Site Layout of William Bowe Ranch (24SB585)**

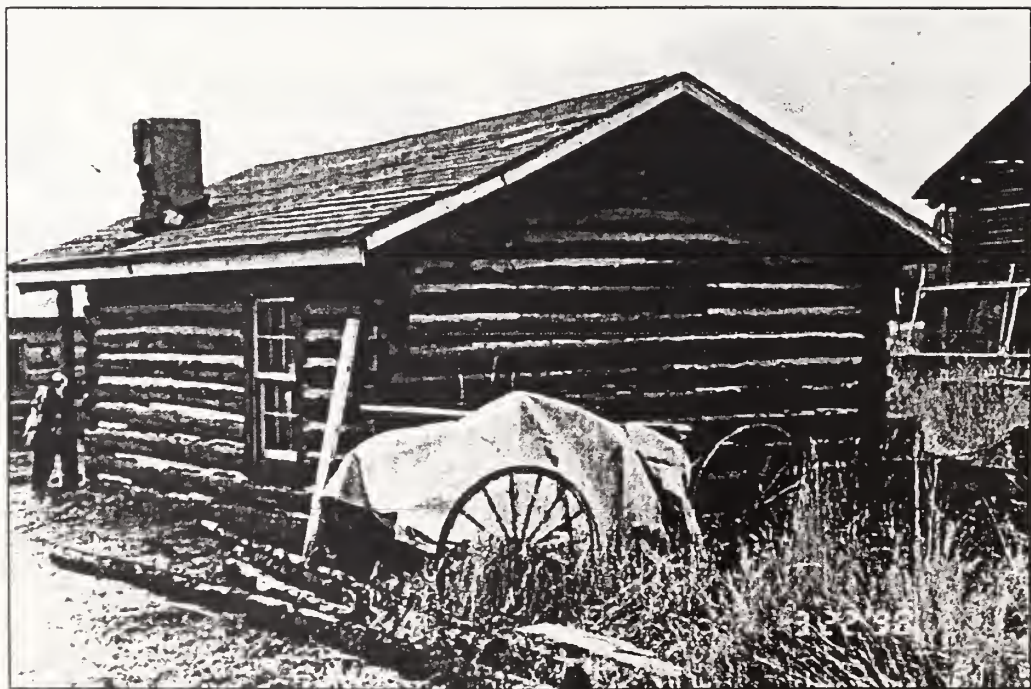
Not To Scale



**Plate 3: Representative Features of the  
William Bowe Ranch (24SB585)**



Residence



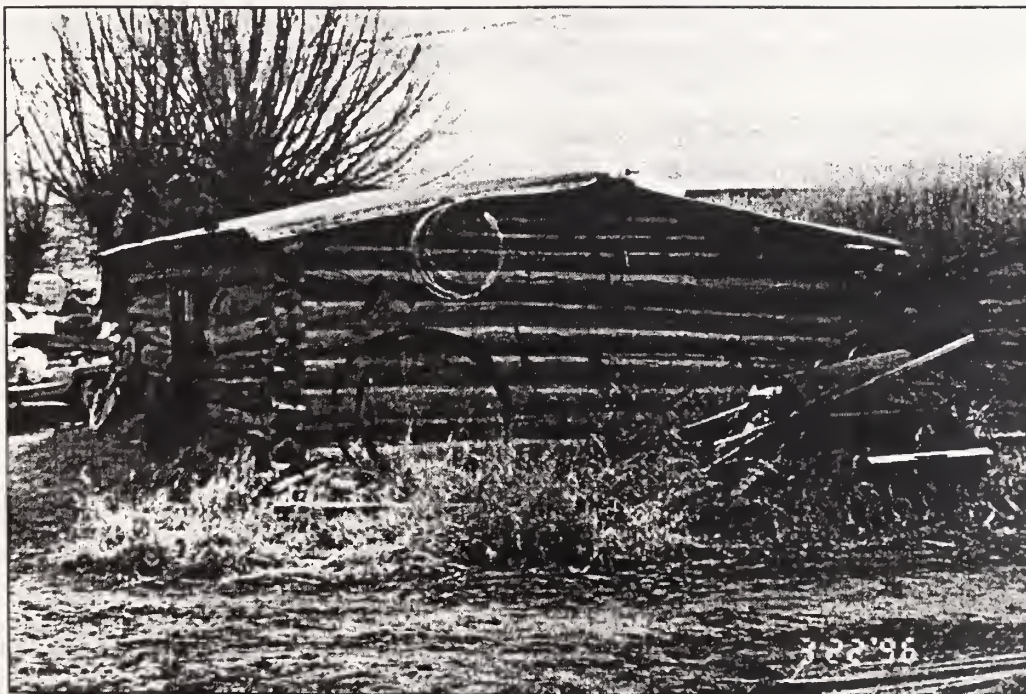
Bunkhouse



**Plate 4: Representative Features of the  
William Bowe Ranch (24SB585)**



Granary and Blacksmith Shop



Log Outbuilding

The proposed action may affect a few areas of perimeter fencing along the northern edge of the FAS but will not impact any other existing features or alter the use of any facilities. The approach to the FAS from Trapper Creek Road will remain in the same location but will be reconstructed under the proposed action. Temporary disruptions of travel on the county road could occur during the reconstruction of the approach to the FAS and the west approach to the proposed bridge. **FIGURE 9** shows the approximate right-of-way line and construction limits for the proposed action at the Salmon Fly FAS.

## 2. Impacts to the Big Hole River Bridge (24BE1803/24SB588)

The proposed action would remove the existing bridge following the construction of the new river crossing and its approaches. The historical integrity of the bridge (and its NRHP-eligibility) would be adversely affected unless the structure is successfully removed and reused at another location.

## 3. Impacts on the William Bowe Ranch (24SB585)

The William Bowe Ranch is bisected by Trapper Creek Road. The residence and thirteen other outbuildings are located on the north side of the county road. The portion of the site on the south side of the road consists of eight structures interconnected by a series of log pens, cattle chutes, and corrals associated with the ranching operation.

Construction plans for the Preferred Alternative show that the proposed centerline for the east approach to the new bridge will be shifted more than 40 meters (130 feet) north of the existing centerline of the county road. This will require that numerous buildings on the north side of the existing road either be relocated or demolished to accommodate construction of the east approach to the new bridge. **FIGURE 10** shows the new bridge and preliminary construction limits for the east approach to the structure in the vicinity of the William Bowe Ranch.

Site features directly impacted by the new road construction include the residence, a log bunkhouse, granary, blacksmith shop, root cellar, barn, two log outbuildings, and a modern shed. MDT has determined that the removal of these features will have an **ADVERSE EFFECT** on the property. The portion of the site located south of Trapper Creek Road will not be impacted by the proposed action. The SHPO concurred with MDT's Determination of Effect for 24SB585 on September 30, 1996.

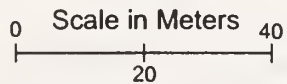
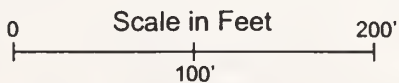
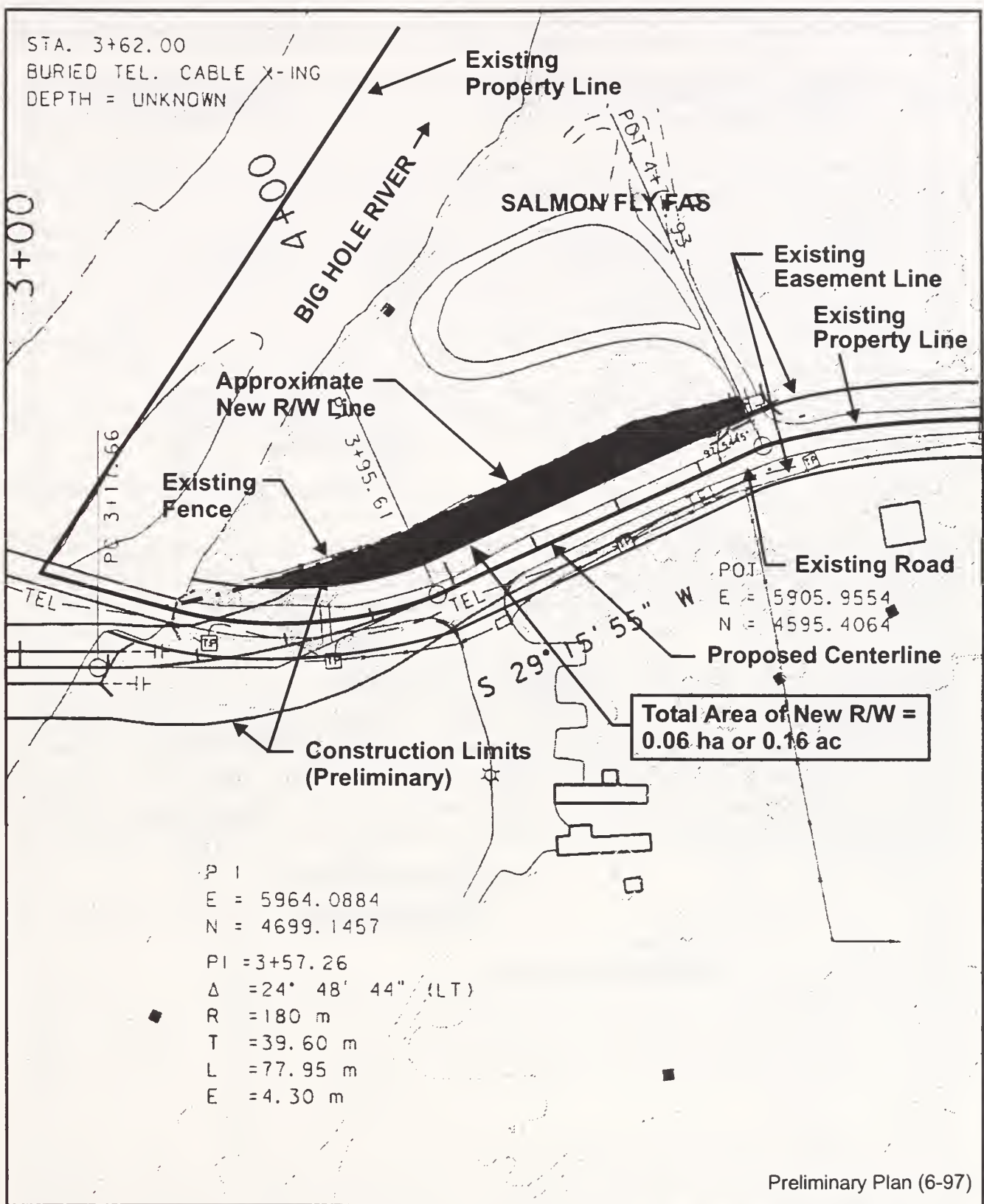
## C. Avoidance Alternatives

Alternatives to the proposed action that would avoid impacts to *Section 4(f)* properties are discussed in the following paragraphs. The reasons avoidance alternatives are not feasible for this project are also discussed below.

### 1. No Build

The No Build Alternative would not impact the Big Hole River Bridge (24BE1803/24SB588), the William Bowe Ranch (24SB585), or the Salmon Fly FAS since no actions other than those associated with the continued maintenance of the existing structure and its approaches would be





Total Area of FAS  
4.96 ha (12.2671 ac)

**Figure 9:  
Impacts on Salmon  
Fly FAS**

Area of Impact

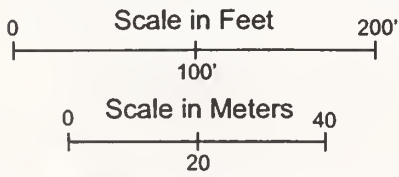
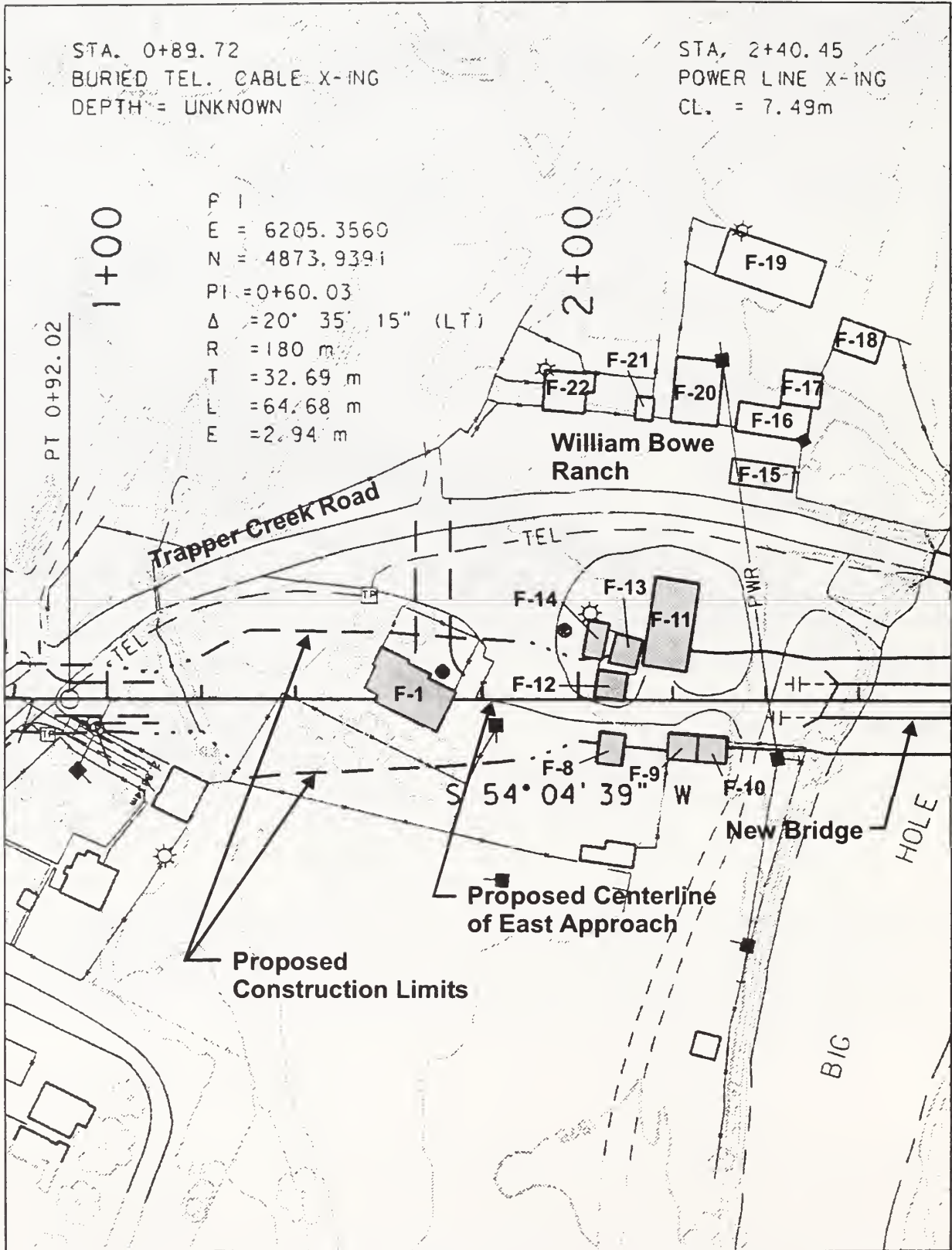
STA. 0+89.72  
 BURIED TEL. CABLE X-ING  
 DEPTH = UNKNOWN

STA. 2+40.45  
 POWER LINE X-ING  
 CL. = 7.49m

F I  
 E = 6205.3560  
 N = 4873.9391  
 PI = 0+60.03  
 $\Delta = 20^\circ 35' 15''$  (LT)  
 R = 180 m  
 T = 32.69 m  
 L = 64.68 m  
 E = 2.94 m

PT 0+92.02  
 1+00

2+00



Structures Directly Impacted by  
 New Approach Construction

**Figure 10:  
 Impacts on William Bowe  
 Ranch (24SB585)**



undertaken. There would be no need for the acquisition of new right-of-way on the east and west approaches to the bridge.

However, this alternative would not satisfy the objectives of this proposed action as specified in the Part II of this document. The No Build alternative would not improve the structural and geometric design deficiencies of the existing bridge, remedy the poor sight distance on its approaches, increase the road's capacity to accommodate present and future traffic volumes, or enhance the traffic safety and convenience of this off-system road. The existing bridge is structurally deficient and functionally obsolete and further investments to preserve the structure can not be justified. This alternative is not consistent with the Butte-Silver Bow County's intention to replace the existing bridge.

For these reasons, the No Build Alternative is not a feasible and prudent alternative for avoiding impacts to the existing NRHP-eligible bridge, the William Bowe Ranch, or the Salmon Fly FAS.

## **2. Close the Existing Bridge**

This avoidance alternative involves the closure of the existing bridge. This would eliminate the need to upgrade the present crossing and avoid impacts on the adjoining historic ranch and recreation site. This alternative would not require construction or cause new impacts on the adjacent lands or the Big Hole River.

Closure of the bridge would eliminate through traffic on Trapper Creek Road and unduly inconvenience local residents and recreational users of the Salmon Fly FAS. The nomination of the existing bridge for replacement suggests that closure of the bridge (and consequently the section of Trapper Creek Road west of Melrose) is unacceptable to Butte-Silver Bow County. Closure of the bridge would be inconsistent with the intentions of both Butte-Silver Bow and Beaverhead Counties to provide a new river crossing. Based on these considerations, closing the existing bridge is not feasible and prudent for this proposed action.

## **3. Rehabilitate the Existing Bridge**

Impacts to *Section 4(f)* properties could be avoided if the existing bridge was rehabilitated rather than replaced on a new location. Rehabilitation would salvage usable parts from the existing structure and installing new members and pieces where needed. No new right-of-way would be needed from either the William Bowe Ranch or Salmon Fly FAS property since the existing structure would be repaired in-place. No modifications to the approaches to the bridge would be necessary.

This alternative would not meet AASHTO recommendations and/or MDT geometric design standards for design speed and road width. It is unlikely that the bridge could be sufficiently upgraded to provide for two driving lanes without compromising its historic characteristics. Experience has shown that the costs associated with rehabilitating the structure would be nearly the same as building a new structure due to the labor-intensive nature of the work.

Since Butte-Silver Bow County has nominated the bridge for replacement not rehabilitation, this alternative would be inconsistent with the intentions of owner of the structure. The existing bridge

has no unique engineering design characteristics that suggest the structure should be preserved instead of replaced. This bridge is not included on the list of historic structures slated for rehabilitation identified in MDT's Roads and Bridges Historic Preservation Plan.

For the reasons disclosed above, rehabilitating the existing bridge is not a feasible and prudent alternative.

#### **4. Rebuild the Bridge on the Same Alignment**

This avoidance alternative (Alternative A in the Environmental Assessment) would construct the new bridge at the same location as the existing crossing. The new bridge deck would be about four feet higher than the existing bridge deck to maintain adequate clearance for floaters on the Big Hole River. This would require that the approaches to the new bridge be elevated, however, the amount of new approach construction would be minimal. Although impacts on the William Bowe Ranch and the FAS could be avoided or minimized by steepening slopes adjacent to the approaches to the new bridge, this alternative would require the removal of the existing historic bridge.

Alternative A does not provide desirable roadway geometrics. This alternative would perpetuate or create traffic safety concerns (steep roadside slopes and limited driver sight distance) on the approaches to the new structure. Additionally, building a new structure on the existing alignment would require closing Trapper Creek Road for extended periods or providing a detour and alternate river crossing. Both measures would disrupt local and recreational traffic during the construction period. Use of a detour and alternate crossing would add considerably to the cost of the project and could cause temporary adverse impacts to adjacent land uses such as the Salmon Fly FAS or the William Bowe Ranch depending on the site of the detour and alternate river crossing.

Based on these considerations, rebuilding the bridge on the same alignment (Alternative A) is not a reasonable and prudent alternative.

#### **5. Shift the Alignment to Avoid *Section 4(f)* Properties**

Locating a new Big Hole River crossing substantially upstream (north) or downstream (south) from the existing bridge and shifting the alignment of Trapper Creek Road and the Big Hole River crossing substantially upstream or downstream would avoid impacts to the existing historic bridge, William Bowe Ranch, and the Salmon Fly FAS. Alignment shifts to avoid these *4(f)* properties are discussed in more detail below.

a) **Upstream Alignment Shifts** - *Section 4(f)* properties could be avoided by locating a new river crossing some 150 meters (500 feet) upstream from the existing bridge and realigning Trapper Creek Road away from the FAS property. This alignment shift would require about 2.0 hectares (5 acres) of new right-of-way, the construction of more than 670 meters (2,200 feet) of new approach, and rebuilding an intersection in Melrose. Realigning Trapper Creek Road to avoid the FAS property would adversely affect current land uses and require the relocation of two full-time residences. Numerous large cottonwood trees along the west bank of the river which provide important perching and roosting opportunities for bald eagles, help stabilize the streambank, and enhance the fishery on

the Big Hole River would also have to be removed to realign the county road. The estimated cost of this avoidance alignment is more than \$100,000 higher than the Preferred Alternative.

The possibility of shifting the road and crossing to the north away from the historic site and the FAS was examined in Part III of the Environmental Assessment. This avoidance alignment, identified as Alternative C-1, would require that traffic on Trapper Creek Road be routed through Melrose and that a new intersection be built near the east end of the project to connect with an existing street in the community. Alternative C-1 would require a longer and more skewed crossing than other alternatives and would remove many large cottonwoods along the west bank of the river that provide valuable habitat for wildlife and fish. Although less right-of-way would be required for Alternative C-1 than for the other upstream avoidance alignment considered, at least one full-time residence would have to be acquired. As indicated in Part III of the Environmental Assessment, the estimated cost of Alternative C-1 is \$30,000 higher than the Preferred Alternative.

**b) Downstream Alignment Shifts - Section 4(f)** properties could also be avoided by locating the river crossing about 460 meters (1,500 feet) downstream from the existing bridge and realigning Trapper Creek Road south of the FAS property. This avoidance alignment would require about 1.6 hectares (3.9 acres) of new right-of-way and the construction of some 550 meters (1,800 feet) of new roadway and an intersection with the existing I-15 frontage road south of Melrose. The bridge at this downstream crossing site would be more than 75 meters (250 feet) in length. The proposed alignment would also disrupt agricultural operations, wetlands, and important riparian habitat on lands south of the FAS.

**c) Conclusion** - Alignment shifts upstream or downstream to avoid *Section 4(f)* properties will require more new right-of-way and residential relocations, more approach road construction, and longer bridges than the Preferred Alternative for the proposed action. As a result, the costs associated with constructing such avoidance alignments would be similar to or substantially above those of the Preferred Alternative. Alignment shifts to avoid *Section 4(f)* properties would alter local traffic circulation patterns and impact previously undisturbed lands where sensitive environmental resources (wetlands, historical or archaeological sites, and wildlife habitat) are present. Because the existing historic bridge would remain in-place with these avoidance alignments, Butte-Silver Bow County would be responsible for maintaining two bridges instead of one which they can not afford.

Based on the preceding analysis, alignment shifts to avoid *Section 4(f)* properties are not feasible and prudent.

## D. Measures to Minimize Harm

### 1. Mitigation for Impacts to the Salmon Fly FAS

The following measures will be implemented as mitigation for impacts to the Salmon Fly FAS:

- ❖ **Provide Replacement Land.** As mitigation for using *Section 4(f)* and *Section 6(f)* land from the Salmon Fly FAS, MDT must provide replacement land of reasonably equivalent usefulness and location and of at least comparable value. As indicated in Part IV of the



Environmental Assessment, MDT is now in the process of acquiring a large parcel of replacement land adjacent to Lewis and Clark Caverns in Jefferson County for a new fishing access or recreation site. This purchase would be used to mitigate the impacts of this proposed project and MDT's Silver Star North & South, Four Corners-West, and Southeast of Ennis highway projects. This proposed mitigation has been discussed with the MDFWP and is acceptable to the agency.

- ❖ **Replace Facilities at the FAS.** Facilities at the FAS impacted by the proposed action will be replaced. Construction of the west approach to the proposed bridge may impact the existing fence between the road and the fishing access site, the approach to the FAS, and signing for the recreation site. The approach to the FAS will be regraded and resurfaced as part of this proposed project. Perimeter fencing or signing impacted by construction will be replaced. MDT will also re-establish a permanent desirable vegetation community in areas of the FAS disturbed by the proposed construction.

## 2. Mitigation for Impacts to the Big Hole River Bridge (24BE1803/24SB588)

- ❖ **Remove and Reuse the Existing Bridge.** MDT offered the Big Hole River Bridge for adoption under the terms of its Adopt-A-Bridge Program. MDT advertised the bridge for adoption in Butte's *Montana Standard*, the *Dillon Tribune*, and the *Bozeman Daily Chronicle* for 45 days beginning in February, 1998 in an attempt to find a new owner for the structure. A copy of MDT's Adopt-A-Bridge Program is included in **APPENDIX E**.

As a result of MDT's efforts, a landowner from the Wise River area adopted the bridge. The structure will be moved and reused on the landowner's property. MDT will notify the FHWA, the ACHP, and SHPO of the adoption and provide documentation that the transfer of ownership has occurred.

## 3. Mitigation for Impacts to the William Bowe Ranch (24SB585)

A Memorandum of Agreement (MOA) outlining the proposed mitigation measures has been prepared by MDT and was accepted by the FHWA, the ACHP, and SHPO in January, 1997. The measures discussed below are included in the MOA as mitigation for impacts on the William Bowe Ranch.

- ❖ **Perform HABS/HAER Recordation.** MDT will contact the Historic American Building Survey/Historic American Engineering Record (HABS/HAER) to determine what level and kind of recordation is required for the William Bowe Ranch. All documentation will be completed prior to any alteration of any historic buildings that contribute to the eligibility of the property. Copies of the documentation will be made available to the SHPO.
- ❖ **Move Buildings on the Site.** MDT will relocate the eight buildings on the William Bowe Ranch that will be affected by the proposed action to a portion of the property unaffected by the proposed road and bridge construction. The buildings will be relocated in such a manner that their alignment and presentation to the roadway is altered as little as possible. The



buildings will be moved by a capable professional mover according to the recommended approaches in *Moving Historic Buildings* (John Obed Curtis, 1979, American Association for State and Local History) and in consultation with SHPO and the landowner.

- ❖ **Prepare Site Documentation and National Register Nomination.** Within six months after buildings on the property have been moved, FHWA, in consultation with the SHPO, will re-evaluate the William Bowe Ranch for eligibility in the NRHP. If the property is determined eligible, MDT will assist the property owner in listing the site. The nomination form will include photographs of the site before and after the affected buildings on the property have been moved.
- ❖ **Install an Interpretive Marker.** MDT will install an interpretive marker at the Salmon Fly FAS describing the history and significance of the William Bowe Ranch to the lower Big Hole River valley.
- ❖ **Restore Disturbed Areas.** MDT will re-establish a permanent desirable vegetation community along all areas disturbed by the proposed construction. This action will be in accordance with **7-22-2152** and **60-2-208, M.C.A.** A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications will include instructions on seeding methods, dates, mix components, and the types and amounts of mulch and fertilizer. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for this proposed project will be forwarded to the Butte-Silver Bow and Beaverhead County Weed Boards for review.

An Erosion Control Plan will also be developed and implemented to minimize erosion of disturbed areas during and following construction of this proposed project.

## E. Coordination

In January, 1991, federal, state, and local agencies were notified of the proposed plans to reconstruct the Big Hole River bridge west of Melrose. Comments and information relevant to this project were requested from those receiving the notification letter. Additional requests for updated environmental information were completed in 1995 during the development of the environmental document for this proposed action.

Contacts were made with the MDFWP on several occasions during the development of this document to discuss issues related to this *Section 4(f)* Evaluation and involvement with lands developed with funds from *Section 6(f)* of the *National Land and Water Conservation Fund Act*. Copies of pertinent correspondence are included in APPENDIX B. MDFWP representatives contacted for this evaluation included:

- Mary Ellen McDonald, Land and Water Conservation Fund Coordinator
- Ken Soderberg, Resource Program Manager

- Tom Reilly, Fisheries Division
- Deb Dills, Land Section

MDT's cultural resource inventories were sent to SHPO for review and comment. SHPO agreed with the findings of the documents and the determinations that the existing Big Hole River Bridge and the William Bowe Ranch are National Register-eligible properties. A Documentation of Adverse Effect describing the impacts of the project on these properties, as well as the proposed mitigation measures, was prepared by MDT and submitted to SHPO for concurrence in September, 1996. As required by 36 CFR 800.5(e), the ACHP was notified of this project's likely Adverse Effect on 24SB585 during June, 1996. A Memorandum of Agreement (MOA) outlining mitigating measures to be implemented at the William Bowe Ranch was prepared by MDT and accepted by the FHWA, the SHPO, and the ACHP in January, 1997.

## VI. Coordination with Others





## VI. COORDINATION with OTHERS

### A. Agency Coordination

The following agencies and parties during the development of this Environmental Assessment and Draft *Section 4(f)* Evaluation:

- Montana Department of Fish, Wildlife & Parks (Fisheries and Parks Division)
- Montana State Historic Preservation Office
- Montana Department of Natural Resources and Conservation (Water Resources Division)
- Natural Heritage Program, Montana State Library
- U.S. Fish and Wildlife Service
- Federal Highway Administration (Montana Division Office)
- U.S.D.A. Natural Resources Conservation Service (Area Conservationist)
- Butte-Silver Bow County
- Beaverhead County

### B. Public Involvement

A News Release for this project was issued in May, 1991. The news release discussed the bridge replacement project under consideration and contained a general description of the scope of work for the proposed project.

A public informational meeting about this project was held on July 6, 1995 at 7:00 p.m. at the Melrose School. The primary purpose of the meeting was to update the public on the status of the project and identify alternatives under consideration for the proposed bridge replacement project. The major comments heard at the meeting are summarized below.

- The public asked questions concerning the design characteristics of the proposed bridge, the disposition of the old structure, and measures to increase the load limit on the existing bridge.
- The owner of the William Bowe Ranch suggested that the new bridge be constructed immediately upstream of the existing structure and that the new east approach be constructed through his property to minimize impacts on the fishing access site.
- The property owner and most others present were in favor of construction along the proposed alignment of the Preferred Alternative.

APPENDIX C contains a summary of the July 1995 public informational meeting held for the project.

Letters notifying various public agencies of the intent to replace the Big Hole River Bridge west of Melrose were distributed during December, 1996. These letters provided agencies with a general description of the scope of work for the proposed project and in some cases, solicited information

that could be used in the development of the environmental document. Agency correspondence resulting from this initial notification is included in APPENDIX B.

No public hearing is planned following FHWA's approval of this Environmental Assessment/*Section 4(f)* Evaluation. However, an updated notice will be released to provide the public with more current information about the proposed project. Written comments will be received on this document for at least thirty (30) days following its distribution. Unless comments received on this document warrant further investigation, no additional public involvement is planned. Public and agency comments on this document will be evaluated to determine whether significant impacts will occur from any of the proposed alternatives; if further consideration of the impacts discussed herein is needed; and if new issues have arisen that need to be addressed in the Environmental Assessment/*Section 4(f)* Evaluation. Appropriate revisions will be made to the text of the Environmental Assessment/*Section 4(f)* Evaluation.

If no significant impacts are identified, MDT will submit the revised Environmental Assessment/*Section 4(f)* Evaluation to FHWA and request that the agency make a Finding of No Significant Impact (FONSI). The FONSI will then be attached to this document. Notice of availability of the FONSI and revised Environmental Assessment/*Section 4(f)* Evaluation will be made to Federal, State, and local government agencies with interests in the project.

If significant impacts are found, MDT and officials from Butte-Silver Bow County must decide to proceed with this project by preparing an Environmental Impact Statement.

### **C. Distribution List for Document**

The following agencies, groups, and individuals are being sent a copy of this Environmental Assessment:

#### **AGENCIES AND OTHERS WITH INTERESTS IN PROJECT**

U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration  
301 South Park, Drawer 10056  
Helena, MT 59626

MONTANA DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
P.O. Box 200901  
Helena, Montana 59620-0901  
Attn: Administrator  
Permitting and Compliance Division

ENVIRONMENTAL QUALITY COUNCIL  
Office of the Director  
Capitol Post Office Box 215  
Helena, MT 59620

MONTANA DEPARTMENT OF FISH, WILDLIFE  
& PARKS  
Parks Division  
1420 East Sixth Avenue  
P.O. Box 200701  
Helena, MT 59620-0701

STATE LIBRARY  
Collection Management Librarian  
1515 East Sixth Avenue  
Helena, MT 59620-1800

SILVER BOW COUNTY COMMISSIONERS  
Courthouse Building  
155 West Granite Street  
Butte, MT 59701

BUTTE-SILVER BOW PLANNING DEPARTMENT  
 Courthouse Building  
 155 West Granite Street  
 Butte, MT 59701

BEAVERHEAD COUNTY LAND USE AND  
 PLANNING  
 Beaverhead County Courthouse  
 2 South Pacific Street  
 Dillon, MT 59725

BUTTE-SILVER BOW PUBLIC WORKS  
 DEPARTMENT  
 Courthouse Building  
 155 West Granite Street  
 Butte, MT 59701

BEAVERHEAD COUNTY ROAD DEPARTMENT  
 Beaverhead County Courthouse  
 2 South Pacific Street  
 Dillon, MT 59725

BEAVERHEAD COUNTY COMMISSIONERS  
 Beaverhead County Courthouse  
 2 South Pacific Street  
 Dillon, MT 59725-2799

## D. List of Agencies With Jurisdiction and/or Permits Required

The following agencies have permit requirements applicable to this proposed action:

- **U.S. Department of the Army, Corps of Engineers (Regulatory Office)** - *Section 404* Permit for the Big Hole River crossing
- **Montana Department of Fish, Wildlife & Parks** - *124SPA* Permit as required under the *Montana Stream Protection Act*
- **Montana Department of Environmental Quality, Permitting and Compliance Division** - *Section 402*/Montana Pollutant Discharge Elimination System Permit and *Section 401* water quality certification (if needed to support a *Section 404* permit)
- **Butte-Silver Bow County/Federal Emergency Management Agency** -- Floodplain Development Permit for road and bridge development in the base floodplain

## E. List of Other Agencies, Persons, or Groups Contacted or Have Contributed Information

The agencies and individuals below were contacted for information useful to the preparation of this Environmental Assessment. Pertinent correspondence from some of these individuals has been included in APPENDIX B.

- David Farrand, Soil Conservationist, U.S.D.A. Natural Resource Conservation Service (Whitehall)
- Karl Christians, Floodplain Management Section Supervisor, Operations Bureau, Montana Department of Natural Resources and Conservation

- Kurt Gelderman, Special Uses Development Specialist, Southwestern Land Office, Montana Department of Natural Resources and Conservation
- Mary Ellen McDonald, Program Officer, Montana Department of Fish, Wildlife & Parks, Parks Division, Resource & Recreation Bureau
- Ken Soderberg, Resource Program Manager, Montana Department of Fish, Wildlife & Parks, Parks Division



# Appendices



## Appendix A: List of Preparers

The following parties are responsible for the preparation and content of this document:

Joel M. Marshik, P.E., Manager  
Environmental Services  
Montana Department of Transportation  
P.O. Box 201001  
Helena, MT 59620-1001

Dale W. Paulson  
Environmental Program Manager  
Federal Highway Administration  
301 South Park, Drawer 10056  
Helena, MT 59626

The following consultants assisted the Montana Department of Transportation in coordinating, developing supporting information, and writing this document:

**Robert Peccia & Associates, Inc.**  
Consulting Civil Engineers, Planners and Designers  
825 Custer Avenue  
P.O. Box 5653  
Helena, Montana 59604

**OEA Research, Inc.**  
Ecological Services  
635 North Jackson  
P.O. Box 1209  
Helena, Montana 59624

**Braun Intertec Corporation**  
2611 Gabel Road  
P.O. Box 80190  
Billings, Montana 59108-0190





## Appendix B: Correspondence Pertinent to Project





# Montana Fish, Wildlife & Parks



RECEIVED

SEP 09 1998

ENVIRONMENTAL

PO Box 200701  
1420 East Sixth Avenue  
Helena, MT 59620-0701

September 4, 1998

Karl Helvig, PE  
Engineering Bureau Chief  
Environmental Services  
Montana Department of Transportation  
2701 Prospect Ave.  
PO Box 201001  
Helena, MT 59620-1001

Dear Karl:

Attached is the concurrence document for the Big Hole River Bridge- West of Melrose project, which affects the Salmon Fly FAS. I apologize for the delay in my response back to you on this project.

We concur with the use of value, provided they are commensurate with the final amount of property needed for right of way and as defined in the right of way construction plans. Please forward a copy of these plans to and the Debby Dils in the FWP Field Services Division, Lands Section when they are available. This value will be used as mitigation for both 4(f) and 6(f).

Salmon Fly FAS is encumbered with LWCF as such the value of the Salmon Fly FAS taking can be applied against the Motherell acquisition adjacent to Lewis and Clark Caverns.

Again, I apologize for the delay.

Sincerely,

A handwritten signature in black ink that reads "Ken Soderberg". The signature is written in a cursive, flowing style.

Ken Soderberg  
Resource Program Manager

cc: Debby Dils



Montana Department  
of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

**MASTER FILE  
COPY**

June 3, 1998

**RECEIVED**

SEP 09 1998

RECEIVED

JUN 5 1998

RECREATION & PARKS  
DIVISION

Ken Soderberg  
Parks Division  
Montana Department of Fish, Wildlife & Parks  
1420 East Sixth Avenue  
P.O. Box 200701  
Helena, MT 59620-0701

**ENVIRONMENTAL**

Subject: **BIG HOLE RIVER BRIDGE - WEST OF MELROSE**  
**BR 9047 (13)**  
**Control No. 1483**

The Montana Department of Transportation (MDT) proposes a minor use of 4(f) land from the Montana Department of Fish Wildlife & Parks (MDFWP) Salmon Fly Fishing Access Site as part of a bridge replacement on Trapper Creek Road immediately west of Melrose in Butte-Silver Bow County. Enclosed is the "rough draft" Environmental Assessment that is being prepared in compliance with the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA). Part V of the document is the "rough draft" Section 4(f) Evaluation for the proposed use of land from the fishing access site and nearby historic ranch and for impacts to the existing historic bridge.

Figure 9 in the attached document shows the area for the proposed location of the new right-of-way on the tract containing the Salmon Fly Fishing Access Site 4(f) property. The Salmon Fly Fishing Access lies entirely within Beaverhead County. The legal description of the property and the impacted area is listed below:

- NW¼ NW¼ of Section 35, Township-2-North, Range-9-West, M.P.M.  
Impacted Area = 0.39 acres (0.16 hectares)

Since the Salmon Fly Fishing Access Site was developed in part with money from the NATIONAL LAND & WATER CONSERVATION FUND - Section 6(f), the proposed mitigation by MDT to the Montana Department of Fish, Wildlife & Parks (MDFWP) is replacement of the impacted 4(f)/6(f) land with land of reasonably equivalent usefulness, location, and value.

MDT has appraised the value of similarly impacted 6(f) land at the nearby Glen Fishing Access Site at \$6,000 per acre with additional compensation for improvements (fencing) affected by the project. Assuming this compensation is appropriate for impacted 6(f) land at the Salmon Fly Fishing Access Site, the value of the impacted property and improvements would be about \$4,800.00. MDT is also working with MDFWP to purchase a 29 acre (11.7 hectare) parcel of replacement land adjacent to Lewis and Clark Caverns in Jefferson County for a new fishing access or recreational site. This purchase would be used to mitigate the impacts of this proposed highway project on the Salmon Fly Fishing Access Site and impacts on other 6(f) sites affected by MDT's Four Corners-West, Silver Star North & South, and Southeast of Ennis projects.



Ken Soderberg  
June 3, 1998  
Page 2

As part of the proposed project, MDT will reconstruct the approach from the county road that provides access to the Salmon Fly Fishing Access Site, replace any signing for the recreational property affected by the project, and replace any perimeter fencing along the MDFWP property that may be disturbed. To complete the Section 4(f) evaluation, MDT needs written concurrence from the MDFWP regarding the assessment of impacts, the approximate value of the impacted 6(f) property, and the proposed mitigation for Section 4(f) and 6(f) impacts.

This proposed project has a current Ready Date of June 1, 1998 and it is important for us to complete the 4(f) evaluation prior to additional work. Please return a signed copy of this concurrence letter as soon as possible if you agree with MDT's Section 4(f) assessment and proposed mitigation.

Also, please review the enclosed "rough draft" Environmental Assessment and Section 4(f) Evaluation and provide us with any comments you have in writing within two weeks from the date of this letter. If no comments are received for the Categorical Exclusion, we will assume your concurrence. If you have any questions, please call me at 444-7224.



Karl M. Helvik, P.E.  
Engineering Bureau Chief  
Environmental Services

Concur: 

Montana Department of Fish, Wildlife & Parks

Date: 9-4-98

KMH:rpa:dmn

Attachment

cc: Jason Giard, P.E., Administrator - MDT Butte District (N<sup>o</sup> 2)  
Carl S. Peil, P.E. - MDT Preconstruction Engineer  
Joseph P. Kolman, P.E. - MDT Bridge Engineer  
Thomas E. Martin, P.E. - MDT Right-of-Way Engineer  
Timothy W. Reardon, Chief Counsel - MDT Legal Services  
David W. Jensen, Supervisor - MDT Fiscal Programming Section  
Mark A. Wissinger, P.E., Supervisor - MDT Contract Plans Section  
Joel M. Marshik, P.E. - MDT Environmental Services Manager  
Project file

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION



MARC RACICOT, GOVERNOR

STATE OF MONTANA

Telephone: (406) 542-4200  
FAX: (406) 542-4285

RECEIVED

SOUTHWESTERN LAND OFFICE  
1401 27th Avenue  
Missoula, MT 59801-4733

September 26, 1996

SEP 27 1996

ROBERT PECCIA  
& ASSOCIATES

Daniel M. Norderud  
Robert Peccia & Associates  
PO Box 5653, 825 Custer  
Helena, MT 59604

Dear Mr. Norderud:

In reference to your letter (attached) I want to thank you for your inquiry.

The State of Montana claims navigability between Wisdom and Divide. Since your projects are situated down stream from Divide the DNRC would not be involved in the permitting of any crossings.

Again, thank you for your inquiry.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kurt Gelderman".

Kurt Gelderman  
Special Uses Development Specialist

DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION



MARC RACICOT  
GOVERNOR

DIRECTOR'S OFFICE (406) 444-2074  
TELEFAX NUMBER (406) 444-2684

STATE OF MONTANA

WATER RESOURCES DIVISION (406) 444-6601  
TELEFAX NUMBER (406) 444-0533

PO BOX 201601  
HELENA, MONTANA 59620-1601

RECEIVED

April 23, 1995

APR 25 1996

ROBERT PECCIA  
& ASSOCIATES

Mr. Daniel Norderud  
Project Manager  
Robert Peccia & Associates  
P.O. Box 5653  
Helena, MT 59604

RE: Big Hole River - West of Melrose  
Big Hole River - SE of Glen

Dear Mr. Norderud:

I apologize for taking so long to respond to your request. With the presidential declaration due to flooding, I have been virtually out of the office for two months.

In follow-up to the above mentioned sites of interest, I have included a copy of a floodplain map generated by the Soil Conservation Service for the Big Hole River near Melrose. The Flood Study was completed in 1986. I have also enclosed a copy of the FEMA Flood Insurance Rate Map (FIRM) panel 420 D, for this area. The 100-year floodplain for the Big hole River has not been delineated in the area of Glen, therefore, there are no maps available of the floodplain.

As such, the Butte Silver-Bow County Floodplain Administrator will require construction and project information on the proposed project if the bridge is to be improved or replaced. The main concern would be the project be developed to have a minimal impact to the 100-year flood. It can not cause an increase in the 100-year flood elevation of more than one half foot (0.5ft). It should also be designed and constructed to withstand 100-year flood forces and itself be minimally impacted in the event of a flood.

If you have any questions, please call me at 444-6654.

Sincerely,

A handwritten signature in cursive script that reads "Karl".

Karl Christians  
Floodplain Management Section Supervisor  
Water Operations Bureau





## **Appendix C: Public Meeting Comments**



## Public Meeting Summary

Project Name: Bighole River Bridge - Melrose  
Project Number: BR9047 (13)  
Control Number: 1483  
Meeting Date: July 6, 1995 - 7:00 pm  
Place: Melrose School

NOV 07 1996

ENVIRONMENTAL

### Purpose:

This was an information meeting to exchange ideas with the public regarding the project.

### Attendees:

See attached list.

### Summary:

Loran Frazier opened the meeting with a general introduction of the project and our purpose in holding the meeting.

Loran explained how the project came to be considered. He continued by detailing the three alternatives developed by the MDT. Green alternate - building the new bridge just south of and parallel to the existing bridge; red alternate - further south of the existing bridge and a somewhat diagonal (northeast to southwest) alignment over the river; blue alternate - taking a circuitous route through town and crossing the river north of the existing bridge on a diagonal alignment northeast to southwest.

Discussion generally focused on the traffic problems with the old bridge, primarily sight distance.

#### Questions included:

What's the difference in height between the old bridge and the new one?

What's to be done with the old bridge?

Would the old pier be removed?

Can the load limit of the existing bridge be increased?

Jason Giard, district administrator, in response to two of the questions explained: 1) the old bridge would be offered to the counties of Silver Bow and Beaverhead, if they weren't interested in it other options could be considered. 2) the district would talk to Silver Bow about increasing the load limit on the old bridge for now.

Initial feeling of the group was the red alternative was best, however, one of the property owners identified another possible alignment between the existing bridge and the blue alternate which appears to provide a better alignment, avoids the 6F property to the southwest of the existing bridge and, ultimately, seemed to be favored by the majority of those present.

Another point brought out was the red and green alignments both have some impact on a building or two which may be connected with the old stagecoach stop in the area.

Other issues raised included:

Some kind of improved surface would be beneficial at least to the fishing access turn-off.

Some right-of-way may be required from the track to the river on the east side and certainly will be necessary on the west side of the river.

Can the bridge be lowered providing slightly less freeboard than currently exists.

The final outcome of the meeting was the department would develop a new alignment along the route suggested at the meeting and both alignments, the new one and the red one, would be investigated to identify which one to pursue.







## **Appendix D: Structure Inventory and Appraisal Report**





(031) DESIGN LOAD: UNKNOWN  
 (064) OPERATING RATING:  
 (066) INVENTORY RATING:  
 (LOAD) TYPE 3: 9 I TYPE 3S2: 12 I TYPE 3-3: 14 I  
 (POST) TYPE 3: 2 I TYPE 3S2: 0 I TYPE 3-3: 0 I  
 OTHER

\*\*\*\*\* CONDITION \*\*\*\*\* CODE \*\*\*\*\* CHANGE ? \*\*\*\*\*  
 (058) DECK: 6  
 (059) SUPERSTRUCTURE: 5  
 (060) SUBSTRUCTURE: 5  
 (061) CHANNEL/CHAN PROTECT: 7  
 (062) CULVERT: N  
 (065) APPR. RDWY CONDITON: 7

\*\*\*\*\* APPRAISAL \*\*\*\*\* CODE \*\*\*\*\* CHANGE ? \*\*\*\*\*  
 (067) STRUCTURAL EVALUATION: 3  
 (068) DECK GEOMETRY: 7  
 (069) UNDERCLEAR VERT/HORZ: N  
 (071) WATERWAY ADEQUACY: 7  
 (072) APPR. RDWY ALIGNMENT: 4  
 (113) SCOUR CRITICAL BRIDGES: 6  
 (036) TRAFFIC SAFETY FEATURES: 0000  
 BR RAILC\_TRANS APPR GD GD TERM Q

\*\*\*\*\* INSPECTION \*\*\*\*\* INTERVAL \*\*\*\*\* DATE \*\*\*\*\*  
 (090) LAST INSPECTION DATE: 24 MO. 05/91

(092,093) CRITICAL FEATURE INSPECT INTERVAL & DATE  
 CFI DETAIL CFI CAT INTERVAL CFI DATE  
 A) FRACTURE CRITICAL: Y 48 MO. 00/00  
 B) UNDERWATER INSP.: 0 MO. 00/00  
 C) PIN CONNECTED: 0 MO. 00/00  
 D) SNOOPER: 0 MO. 00/00

\*\*\*\*\* FIELD INSPECTION \*\*\*\*\*  
 INSPECTED BY: *David G. Gandy* & *J. H. ...*  
 DATE INSPECTED: *May 24 1993*  
 \*\*\*\*\* OFFICE REVIEW \*\*\*\*\*  
 -- BRIDGE EVALUATION UNIT --  
 ENGINEERING REVIEW NECESSARY? YES DATE  
 REVIEWED BY: DATE

(008) STRUCTURE NUMBER: BUTTE  
 (002) HIGHWAY DIVISION: SILVER BOW  
 (003) COUNTY:  
 (004) CITY:  
 (006) FFATURE XED.: BIG HOLE RIVER 008  
 (007) FACILITY CARRIED: COUNTY ROAD 033  
 (009) LOCATION: W MELROSE  
 (016) LAT: 45 D 37.2 (017) LONG: 112 D 41.0

\*\*\*\*\* CLASSIFICATION \*\*\*\*\* CODE \* % Y 0  
 (SR) SUFFICIENCY RATING: 31.1  
 (112) NBIS BRIDGE LENGTH: 0  
 (100) DEFENSE HIGHWAY: 2  
 (021) MAINTAINED BY: COUNTY HIGHWAY AGY 2  
 (037) OWNED BY: COUNTY HIGHWAY AGY 2  
 (022) HISTORICAL SIGNIF: COUNTY NOT ELIGIBLE 5  
 (032) PROJECT NO: 000000  
 (031) DRAWING NO: 000000

\*\*\*\*\* AGE AND SERVICE \*\*\*\*\* CODE \*  
 (027) YEAR BUILT: 1915 (106) YEAR RECONS: 0000  
 (042) TYPE SERVICE: HIGHWAY WATERWAY 15  
 (028) LANES ON: 1 UNDER: 0 (029) ADT: 31  
 (030) YEAR ADT: 91 (109) TRUCK ADT: 0%  
 (019) BYPASS DETOUR LENGTH: 99 MI

\*\*\*\*\* STRUCTURE TYPE & MATERIAL \*\*\*\*\* CODE \*  
 (043) STRUCTURE TYPE-MAIN: 310  
 (044) STRUCTURE TYPE-APPR: 000  
 (045) NO. SPANS-MAIN: 2  
 (046) NO. SPANS-APPR: 0  
 (107) DECK STRUCTURE TYPE: NONE 5 IN  
 (108) WEAR SURF/PROTECTIVE SYS: 1 DEPTH: 5 IN  
 A) TYPE MEMBRANE: NONE  
 B) TYPE DECK PROTECTION: NONE  
 C)

\*\*\*\*\* GEOMETRIC DATA \*\*\*\*\* CODE \*  
 (048) LENGTH OF MAXIMUM SPAN: 100 FT  
 (049) STRUCTURE LENGTH: 200 FT  
 (050) CURB/SIDEWALK: LEFT: 0.0 FT RIGHT: 0.0 FT  
 (051) BR RDWY WIDTH (CURB TO CURB): 15.7 FT  
 (052) TOTAL HORIZ. CLEAR. (CURB/RAIL): 15.7 FT  
 (047) DECK WIDTH (OUT TO OUT): 16.0 FT  
 (032) APPROACH ROADWAY WIDTH: 20 FT  
 (033) BRIDGE MEDIAN: NO MEDIAN  
 (034) SKEW: 5 D (035) FLARED: 0  
 (053) MIN VERT CLEAR OVER BR. RDWY: 99 FT 99 IN  
 (054) MIN VERT UNDERCLEAR REF: N 0 FT 0 IN  
 (055) MIN LAT. UNDERCLEAR RT REF: N 0.0 FT  
 (056) MIN LAT. UNDERCLEAR LT: 0.0 FT

# S.I. & A. SUPPLEMENTAL FORM

STRUCTURE NO. L47026 000+0.200 USC FEATURE CROSSED BIG HOLE RIVER

INSPECTED BY D. GRAVAGE THERMAN DATE INSPECTED MAY 18, 1993

## CONDITION RATINGS

58.  DECK

- A.  CURBS
- B.  FLOORBEAMS/SLAB
- C.  GUARD ANGLES
- D.  JOINTS
- E.  MEDIAN
- F.  RAIL/BARRIER
- G.  SIDEWALKS
- H.  WEARING SURFACE
- I.  OTHER

59.  SUPERSTRUCTURE

- A.  BEARING DEVICES
- B.  BRACING
- C.  DRAINAGE
- D.  FLOORBEAMS
- E.  GIRDERS
- F.  PAINT
- G.  STRINGERS
- H.  TRUSSES
- I.  UTILITIES
- J.  OTHER

60.  SUBSTRUCTURE

- A.  ABUTMENTS
- B.  BENTS/PIERS
- C.  BRACING
- D.  CAPS
- E.  COLUMNS
- F.  ENOFILLS
- G.  FOOTINGS/SILLS
- H.  ICE BREAKERS
- I.  PILES/POSTS
- J.  RETAINING WALLS
- K.  OTHER

61.  CHANNEL AND CHANNEL PROTECTION

- A.  CHANNEL LINING
- B.  DRIFT
- C.  LEVEES
- D.  RIP RAP/GABIONS
- E.  SCOUR/PIPING
- F.  SPUR DIKE
- G.  STREAM BANK
- H.  VEGETATION
- I.  OTHER

62.  CULVERT

- A.  DEPOSITION
- B.  EMBANKMENT
- C.  FOOTINGS
- D.  RAIL/BARRIER
- E.  INVERT
- F.  JOINTS/BOLTS
- G.  RETAINING WALLS
- H.  SHAPE
- I.  OTHER

65.  APPROACH ROADWAY CONDITION

- A.  APPROACH SLAB
- B.  EMBANKMENT
- C.  GUARORAIL
- D.  JOINTS
- E.  SHOULDERS
- F.  SURFACE
- G.  TRANSITION
- H.  OTHER

## APPRAISAL RATINGS

71.  WATERWAY ADEQUACY

- A.  ALIGNMENT
- B.  CAPACITY
- C.  FREEBOARD
- D.  PROFILE
- E.  OTHER

72.  APPROACH ROADWAY ALIGNMENT

- A.  HORIZONTAL CURVE
- B.  LATERAL CLEARANCE
- C.  LOAD POSTED
- D.  SIGNS/MARKERS
- E.  VERTICAL CURVE
- F.  VISIBILITY
- G.  OTHER

REMARKS: 58) Concrete deck (5 1/2" - 6" thick) has some random lateral cracking, with small sections breaking out at the joints. The largest broken sections are where the two trusses compress at bent N<sup>o</sup> 2 (see photo). Light steel barrier rail has a few areas of vehicle damage, with a missing section @ Abut 3. Small area of exposed reinforcing mesh near the W. bridge end. 59) Rusty bearing plates are tight at the center pier, covered with debris on the end bents. Some of the bracing is loose and light to med. rust. The floorbeams & stringers also have light to med. rusting, however some areas of heavier rust & scaling. Entire structure needs cleaned & painted. The truss shows signs of stress at the gusset rivets (photos) probably due to the heavy concrete load. Scale rust buildup between the gusset plates, otherwise the rest of the truss has medium rusting. 60) End abutments have some minor cracking & spalled areas. Pier 2 has had repair work done, but the upstream end has a fairly large area of spalled concrete (photo), but it is well above waterline & below bearing points. Footing/sill probe revealed no problems. 61) Some channel scour evident a few feet out from the E. abutment, more rip rap would help. continued...

P R I O R I T Y				
	MAINTENANCE ACTIVITY NUMBERS	<b>MAINTENANCE RECOMMENDATIONS</b> <small>FEDERAL-AID - STATE MAINTAINED ONLY</small>		MAINTENANCE FORCES
			REPAIRS COMPLETED BY:	DATE



SUPPLEMENTAL INSTRUCTIONS

Evaluate and describe items 58-62, 65, 71 and 72 based on the guidelines listed below and in the Inspector's Manual. Condition codes are used to describe the existing, in place bridge in comparison to its as built condition. Codes in the Appraisal Section are used to evaluate the bridge in relation to the level of service it provides to the highway system of which it is part. Maintenance items, listed alphabetically, do not necessarily affect the overall rating given to the major components. Where sketches and narrative descriptions cannot fully describe the deficiency, extra photos should be taken.

<u>Code</u>	<u>Condition</u>	<u>Code</u>	<u>Appraisal</u>
N	NOT APPLICABLE	N	Not applicable
9	EXCELLENT CONDITION	9	Superior to present desirable criteria
8	VERY GOOD CONDITION - no problems noted.	8	Equal to present desirable criteria
7	GOOD CONDITION - some minor problems.	7	Better than present minimum criteria
6	SATISFACTORY CONDITION - structural elements show some minor deterioration.	6	Equal to present minimum criteria
5	FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.	5	Somewhat better than minimum adequacy to tolerate being left in place as is
4	POOR CONDITION - advanced section loss, deterioration, spalling or scour.	4	Meets minimum tolerable limits to be left in place as is
3	SERIOUS CONDITION - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.	3	Basically intolerable requiring high priority of corrective action
2	CRITICAL CONDITION - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.	2	Basically intolerable requiring high priority of replacement
1	"IMMINENT" FAILURE CONDITION - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.	1	This value of rating code not used
0	FAILED CONDITION - out of service - beyond correction action.	0	Bridge closed

MAINTENANCE PRIORITIES

The inspector is to enter the letters "C," "P" or "R" under the priority column that best describes the structure's maintenance priority. The inspector shall use his or her best judgment of the condition using these guidelines.

**CRITICAL:** Requires the immediate attention of maintenance personnel because the structure's integrity is questionable. The Bridge Maintenance Manager in Helena is to be notified by the Division Maintenance Chiefs. When corrective action has been taken under this priority, the supervisor in charge should complete the bottom portion of this form and attach to Form MMS-97 for return to the Maintenance Administrator.

- |   |   |
|---|---|
| A. Fractured stringers, girders or beams.             | D. Timber structure with broken piles, severely crushed cap |
| B. Prestressed beams - exposed strands need painting. | E. Holes in deck or spalls and delaminated in excess of 10% |
| C. Fractured or severely misaligned truss members.    | F. Anything unusual (changes, separations, misalignments).  |

**PREVENTATIVE:** Should be attended to in a timely manner to prevent the condition from becoming critical. When corrective action has been taken under this priority, the supervisor in charge should complete the bottom portion of this form and attach to Form MMS-97 for return to the Maintenance Administrator.

- |  |   |
|--|---|
| A. End fills sloughing (depending on extent, could be critical). | <b>ROUTINE:</b> Regular items of maintenance needing attention. |
| B. Spalls and delamination of deck between 5% and 10%.           | A. Drains and/or joints need cleaning.                          |
| C. Structural steel and/or bridge rail needs painting.           | B. Clean around shoes.  |
|  | C. Removal of drift and debris from around piers.               |

ACTIVITY CODE DESCRIPTIONS

The inspector should enter the activity code which best describes their maintenance recommendations. If the appropriate number is unknown, leave blank for maintenance persons to complete. An activity code is unnecessary for routine maintenance. The 4000 series is specifically for bridges, but other codes may also apply. A complete list of activity codes can be found in the Bridge Inspection and Maintenance Manuals.

- |   |   |
|---|---|
| 4101 Structure Painting                 | 4106 Expansion Joint Repair             |
| 4102 Repair Timber Structures           | 4107 Bridge Curb and Railing Repair     |
| 4103 Concrete Bridge Deck Repair        | 4108 Emergency Bridge Repairs           |
| 4104 Repair or Replace Structural Steel | 4109 Structure Leveling                 |
| 4105 Substructure Concrete Repair       | 4301 Betterment Work - Bridge Structure |

Distribution: After inspection submit white original to the Bridge Bureau, pink copy to the Division Maintenance Office or local authority (e.g., county, city) and yellow copy for the Division Inspection files.

Structure No. L47026 000+0.200 08C

Date MAY 18, 1993

Inspector D. GRAVAGE T. HERMAN

Remarks (cont'd)

65) Narrow embankment on the E. approach leaves an abrupt edge on the asphalt - narrow shoulders. Roadway narrows onto the one-lane bridge.

72) Horizontal curves on both approaches, ~~are~~ sharper on the W. approach. Also a vertical curve on the W. approach. Visibility limited on the W. approach

Two ton load limit is posted (Low?) No hazard markers

71) Structure does not span channel properly





147026 000 to 0.200 8C  
Big Hole River  
Looking East



147026 000 to 0.200 8C  
Big Hole River  
Looking down stream



147026 000 to 0.200 8C  
Big Hole River  
Looking West

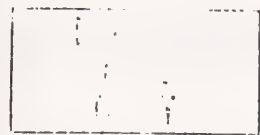




## Appendix E: Materials Pertinent to Section 4(f) Evaluation



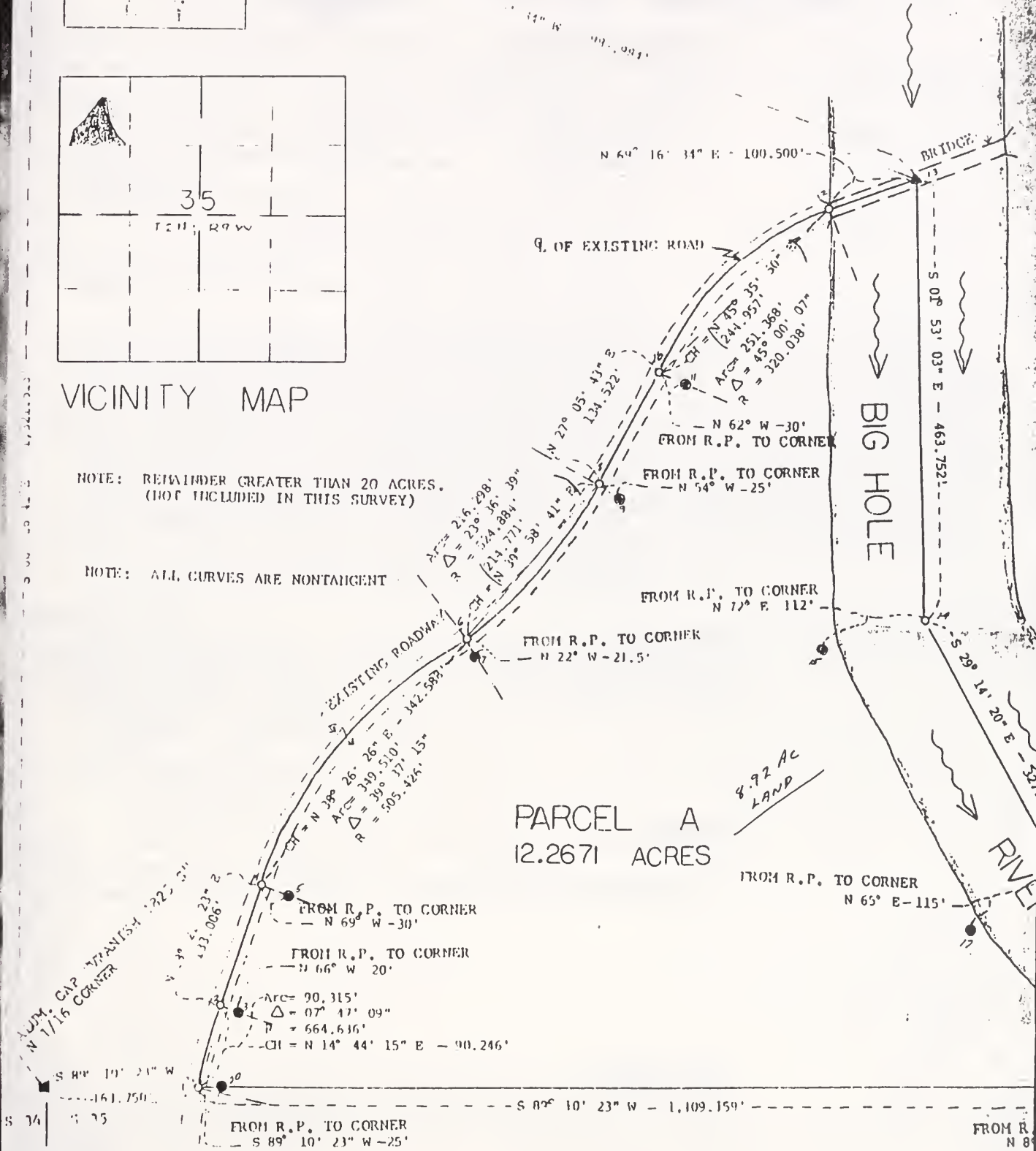




VICINITY MAP

NOTE: REMAINDER GREATER THAN 20 ACRES.  
(NOT INCLUDED IN THIS SURVEY)

NOTE: ALL CURVES ARE NONTANGENT



PARCEL A  
12.2671 ACRES

**BASIS OF BEARING:**

North-South Boundary of the Melrose Townsite = South 11° 15' East

**CORNER MARKERS:**

- - True Property Corner (Not Set)
- - Reference Point
- (1/2" x 24" rebar w/ plastic yellow cap marked "EVERLY - 1442RS")
- ▲ - Concrete Nail set in center of Bridge.

CERTIFICATE OF SURVEY

PARCEL A

A parcel of land situated in the Northwest Quarter of the Northwest quarter of Section 35, Township 2 South, Range 9 West, Principal Meridian Montana, Beaverhead County, Montana, lying Westerly of the Main channel of the Big Hole River; and more particularly described as follows:

Beginning at the northeast corner of the parcel herein described, which point is located at the intersection of the centerline of the Big Hole River with the centerline of an existing roadway bridge, and from which point the Northwest corner of said Section 35 bears North 23° 34' west, a distance of 982.984 feet;
thence, from the POINT OF BEGINNING, 1st course, South 01° 53' 03" East, a distance of 463.752 feet, along said River centerline;
thence, 2nd course, South 29° 14' 20" East, a distance of 327.556 feet, along said River centerline;
thence, 3rd course, South 42° 05' 22" East, a distance of 280.034 feet, along said River centerline;
thence, 4th course, South 89° 10' 23" West, a distance of 1,109.159 feet, to a nontangent point on the curve of the centerline of an existing roadway, from which point the North 1/16 corner of said Section 35 and Section 34 bears South 89° 10' 23" West, a distance of 163.750 feet;
thence, 5th course, along said curve, concave to the southeast, having an arc length of 90.315', central angle of 07° 47' 09", radius of 664.636', and whose long chord bears North 14° 44' 15" East, a distance of 90.246 feet, to a point of nontangency of said roadway centerline;
thence, 6th course, North 18° 21' 23" East, a distance of 133.006 feet, to a nontangent point of curvature along said roadway centerline;
thence, 7th course, along said curve, concave to the southeast, having an arc length of 349.510', central angle of 39° 37' 15", radius of 505.426', and whose long chord bears North 38° 26' 26" East, a distance of 342.588 feet, to a nontangent point of reverse curvature of said roadway centerline;
thence, 8th course, along said curve, concave to the northwest, having an arc length of 216.298', central angle of 23° 36' 39", radius of 524.884', and whose long chord bears North 39° 58' 41" East, a distance of 214.771 feet, to a point of nontangency of said roadway centerline;
thence, 9th course, North 27° 05' 43" East, a distance of 134.522 feet, to a nontangent point of curvature of said roadway centerline;
thence, 10th course, along said curve, concave to the southeast, having an arc length of 251.360', central angle of 45° 00' 07", radius of 320.030', and whose long chord bears North 45° 35' 50" East, a distance of 244.957 feet, to a point of nontangency on the west side of the roadway bridge centerline;
thence, 11th course, North 69° 16' 34" East, a distance of 100.500 feet, to the POINT OF BEGINNING, and containing an area of 12.2671 acres.

PURPOSE OF SURVEY

I (We) certify that the purpose of this survey is to create a parcel as an occasional sale, and that this exemption complies with all conditions imposed on its use; therefore this survey is exempt from review as a subdivision pursuant to Chapter 76-3-207(1)(d) Montana Codes Annotated.

Owner(s): Dan J. Patton
Margaret M. Patton

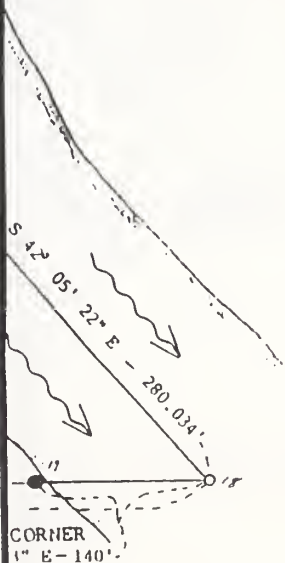
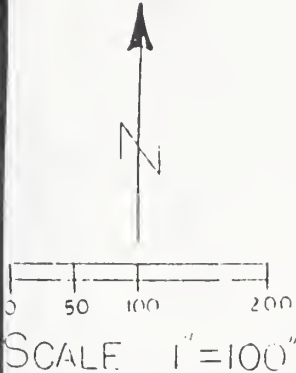
ACKNOWLEDGED:

Subscribed and Sworn to before me this 24th day of August, 1985.

Notary Public for the STATE of MONTANA
My Commission expires 1-19-87, 1987. Residing at Butte, MT.

SANITARY EXCLUSION:

Parcels used for utility sitings, easements, parking lots, parks, gravel pits and lifts provided no structures requiring water or sewage disposal be erected on the parcel. Any change in land use subjects the division to the provisions of Title 76, Chapter 1, MCA, and this chapter, as recorded in the Montana Department of Health & Environmental Sciences Subdivision Regulations. A.R.M. 16.16.605(2)(e).



EVERLY & ASSOCIATES P.O. BOX 6 BUTTE MONTANA 59703 (406) 782-1738
CERTIFICATE OF SURVEY No. 493
SCALE 1"=100'
DRAWN BY JUR
REVISOR
NW 1/4 SECT. 35, T2S, R9W, PMM. BEAVERHEAD COUNTY MONTANA
DATE APPROVED BY DRAWING NUMBER



# Montana Fish, Wildlife & Parks

RECEIVED

APR 30 1998

Joel Marshik, PE  
Environmental Services Manager  
Montana Department of Transportation  
Box 201001  
Helena MT 59620-0701

ENVIRONMENTAL

April 27, 1998

Dear Joel,

I have sent the documentation to the NPS for the Riceville Hill project using land adjacent to Lewis and Clark Caverns as replacement property. I have discussed this project with the National Park Service as well as MDOT's desire to use the remaining value on the Mother El parcel as replacement for other FWP sites MDOT will impact that are encumbered with LWCF funding. The remaining value of the replacement property can be used against the other projects. Upon approval of the Riceville Hill 6(f) I should receive a letter from NPS to that affect. You will have one year to carry this value over to other projects. We will need appraisals of the properties involved and will need the copies of the environmental documentation you will be preparing.

Sincerely,

Ken Soderberg  
Resource Program Manager  
ASLO- LWCF Program

C: Debby Dils  
Doug Monger  
✓ Karl Helvig- MDOT



# Montana Fish, Wildlife & Parks

Joel Marshik  
Environmental Manager  
Department Of Transportation  
2701 Prospect  
POB 201001  
Helena, MT 59620

April 15, 1998

REF: RICEVILLE HILL  
CONTROL No. 2021

Dear Joel:

This letter is to confirm that Montana Fish, Wildlife and Parks concurs with using property at Lewis and Clark Caverns for replacement property to satisfy 6(f) and 4(f) mitigation for land MDOT will impact on Sluice Boxes State Park as part of the Riceville Hill realignment project.

This concurrence is contingent on successful negotiation with the landowner for acquisition of the property at Lewis and Clark Caverns and final approval from the National Park Service for 6 (f) mitigation. These approvals will not hold up commencing work on the project as FWP has already initiated the process to transfer title to the easement needed at the Riceville location. I have explained to the Park Service the need to move forward with the Riceville Hill project. If negotiations are unsuccessful alternate replacement property must be found.

Please forward the following so I can send them to the NPS for review, a copy of the 4(f) documentation you have prepared for the project, a copy of the appraisal for the property in the Sluice Boxes that is affected and a copy of the EA prepared for the project.

If you have questions please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Soderberg". The signature is written in a cursive, somewhat stylized font.

Ken Soderberg  
Management Bureau  
Parks Division

C: Karl Helvig- MDOT  
Debbie Dils- FWP



**Montana Department  
of  
Fish, Wildlife & Parks**



1420 East Sixth Avenue  
Helena, Montana 59620

APR 11 1995

MASTER FILE  
COPY

April 10, 1995

Joel M. Marshik, P.E.  
Environmental Services Manager  
Montana Department of Transportation  
P. O. Box 201001  
Helena, MT 59620-1001

cc: Pre Construction  
R/W - Allan BERGER

APR 12 1995

Re: BR 9047(13)  
Big Hole River - West of Melrose  
Control No. 1483

Dear Joel:

Under the LWCF program, it is ideal if the Section 6(f) replacement properties are in the same vicinity as the property being converted. This is not required, but is desirable.

It appears the value of the replacement property will far exceed the value of the property needed for this bridge replacement project. Purchasing this property can be used to satisfy other 6(f) converted properties, such as the Four Corners West FAS property taking. Timing is very important in the Section 6(f) conversion process, therefore, we will need to continue to work together to satisfy the LWCF conversion requirements.

Your question regarding the feasibility of the current proposal and evaluations of the impact to the site has been deferred to the Fisheries Division for their comment.

The maps you provided are very helpful, thanks. Let's revisit soon to determine where we go from here.

Sincerely,

*Mary Ellen McDonald*

MARY ELLEN McDONALD  
Program Officer  
Resource & Recreation Bureau  
Parks Division

cc: Regional Supervisor - Bozeman  
Bruce Rehwinkel  
Richard Oswald

**Montana Department  
of  
Fish, Wildlife & Parks**



RECEIVED  
MAR 10 1995  
ENVIRONMENTAL BUREAU

MASTER FILE  
COPY

1420 East Sixth Avenue  
Helena, Montana 59620

ENVIRONMENTAL BUREAU

cc: Jason Gard

March 9, 1995

Joel M. Marshik  
Manager Environmental Services  
Montana Department of Transportation  
P.O. Box 201001  
Helena, MT 59620-1001

Re: BR 9047 ( ) C#1483  
Bighole River Bridge - West of Melrose

Dear Joel:

The purpose of this letter is to let you know that the Salmon Fly Fishing Access Site is Section 6(f) property, under the LWCF Act of 1965.

Early correspondence regarding this project indicated that most fishing access sites on the Bighole River do fall under Section 6(f), however, no specific mention was made of the Salmon Fly FAS.

Please continue to work with our Bozeman office to mitigate Section 4(f) impacts. Section 6(f) mitigation is handled through my office in the Parks Division. Karl Helvik and I have recently discussed the Section 6(f) impacts, specifically that there will be .81 acre property taking. Karl indicated he'll be providing me copies of maps and other details needed to begin the 6(f) process.

Let me know if you need further information at this time.

Sincerely,

MARY ELLEN McDONALD  
Program Officer  
Resource & Recreation Bureau  
Parks Division

# Montana Department of Fish, Wildlife & Parks



1420 East Sixth Avenue  
Helena, Montana 59620

October 9, 1991

Mr. David S. Johnson, Chief  
Preconstruction Bureau  
Dept. of Highways  
2701 Prospect  
Helena, MT 59620

Dear Mr. Johnson:

RE: BR 9047() C#1483  
Bighole River Bridge - West of Melrose

Date Recd. Preconst		10-11-91	
Act	Info	MAIL ROUTE	Attach
		30 Preconst Engr	
		30 Assistant	
		30 Office Mgr	
		31 Safety Officer	
		32 Road Design	
		33 Environment	
		34 Hydraulics	
		35 Survey & Mapping	
		36 Traffic Eng.	
		37 Traffic Operations	
		39 Consultant Dsn	
		<i>D.C. Gill</i>	
		File	

We have reviewed your above-mentioned proposed project for replacement of the Bighole River Bridge west of Melrose on the county road.

The numerous Fishing Access Sites on the Bighole River are near your project boundaries. These lands have 4(f) usage as defined by Section 4(f) of the 1966 Department of Transportation Act. If you anticipate any impacts to our site as a result of your bridge replacement project, please contact us so we can work with you to mitigate any problems.

Most Fishing Access Sites on the Bighole River do fall under 6(f) of the Land and Water Conservation Fund Act.

Please keep Bob Martinka, the regional supervisor of region 3, informed as this project develops.

*Derry Walker Parks - Mayor*  
If you need more information regarding the numerous Fishing Access Sites on the Bighole River area, please let us know. Thank you for the opportunity to comment. We appreciate your cooperation.

Sincerely,

*Mary Ellen McDonald*

MARY ELLEN MC DONALD  
Administrative Officer  
Operations Bureau  
Parks Division

cc: Bob Martinka

Post-it® Fax Note	7671	Date	3-8-95	# of pages	1
To	Mary Ellen McDonald	From	Barry Brosten		
Co./Dept	FWP	Co.	MDT		
Phone #		Phone #	0804		
Fax #	7952	Fax #	7245		

FAX

Advisory  
Council On  
Historic  
Preservation

RECEIVED

JUN 21 1996

ENVIRONMENTAL

The Old Post Office Building  
1100 Pennsylvania Avenue, NW, #809  
Washington, DC 20004

Reply to: 730 Simms Street, #401  
Golden, Colorado 80401

June 14, 1996

Dale Paulson  
Environmental Coordinator  
Montana Division  
Federal Highways Administration  
301 South Park Street, Room 448  
Drawer 10056  
Helena, MT 59626-0056

REF: *Adverse effect notice regarding the Big Hole River - West of  
Melrose project.*

Dear Mr. Paulson:

On May 14, 1996, we received your adverse effect notification regarding the proposed Big Hole River - West Melrose project and its effects on the William Bowe Ranch, a property that has been determined eligible for inclusion in the National Register of Historic Places. It appears from the information provided that the proposed project will have a rather substantial affect on this historic property, requiring the relocation or demolition of six of the contributing buildings. You may proceed in consulting with the Montana State Historic Preservation Officer (SHPO) and any interested persons to develop a Memorandum of Agreement (MOA) to address this adverse effect. The Council would like, however, to have an opportunity to review additional documentation on this undertaking (in accordance with 36 CFR 800.8[b] and [c]), your 4(f) analysis, and a copy of the MOA prior to receiving a final, signed, MOA for acceptance.

Thank you for providing us this notice of adverse effect. If you have any questions, please contact Carol Gleichman of the Western Office of Review at (303) 231-5320.

Sincerely,



Claudia Nissley  
Director, Western Office  
of Project Review





**RECEIVED**

AUG 26 1996

**ROBERT PECCIA  
& ASSOCIATES**

August 22, 1996

Paul Putz  
State Historic Preservation Office  
1410 8th Avenue  
P.O. Box 201202  
Helena, MT 59620-1202

Subject: BR 9047(13)  
Big Hole River - West of Melrose  
Control No. 1483

Enclosed is the site form for the Big Hole River Bridge west of Melrose (24BE1803/24SB588). We have determined that the bridge is eligible for the NRHP under Criterion C; we request your concurrence. The bridge will be treated under the conditions of the draft Roads and Bridges Historic Preservation Plan.

If you have any questions, please contact me at 444-6258.

Jon Axline, Historian  
Environmental Services

Enclosure

cc: Jason Giard, P.E., Butte District Administrator  
Joseph Kolman, P.E., Bridge Engineer  
Gordon Stockstad, Resources Section  
Dan Norderud, Peccia & Associates



Montana Department of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

Marc Racicot, Governor

RECEIVED

RECEIVED

OCT - 2 1996

OCT 01 1996

MASTER FILE COPY

September 12, 1996  
ROBERT PECCIA & ASSOCIATES

ENVIRONMENTAL

Paul Putz  
State Historic Preservation Office  
1410 8th Avenue  
P.O. Box 201202  
Helena, MT 59620-1201

305 Sep 96 SIGNED *Jon Axline*

Subject: BR 9047(13)  
Big Hole River - West of Melrose  
Control No. 1483

Enclosed is the Determination of Effect and draft Memorandum of Agreement regarding the above MDT bridge replacement project. We have determined that the proposed project would have an **Adverse Effect** to the William Bowe Ranch (24SB585). Possible mitigation for the property includes completion a HABS document, relocating the impacted buildings back from the proposed new alignment, listing the property on the National Register and installing an interpretive marker describing the history of the property at the adjacent Salmon Fly Fishing Access site. Please review the draft MOA and forward to me any comments you have concerning it.

A local landowner has expressed interest in adopting the Big Hole River Bridge (24BE1803/24SB588). If this prospect fails to materialize we will attempt to find a new owner for the structure through the local media. We believe this would constitute a **No Adverse Effect** to the bridge.

If you have any questions, please contact me at 444-6258.

*Jon Axline*  
Jon Axline, Historian  
Environmental Services

Enclosures

cc: Jason Giard, P.E., Butte District Administrator  
Joseph Kolman, P.E., Bridge Engineer  
Joel Marshik, P.E., Environmental Services  
Gordon Stockstad, Resources Section  
Dan Norderud, Robert Peccia & Associates

**MEMORANDUM OF AGREEMENT  
BIG HOLE RIVER BRIDGE - WEST OF MELROSE  
SILVER BOW COUNTY, MONTANA  
BR 9047(13)  
Control No. 1483**

97 JUN 16 P1:04

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Big Hole River Bridge - West of Melrose bridge replacement project.

WHEREAS FHWA has determined that the undertaking will have an effect on the William Bowe Ranch (24SB585) and Big Hole River Bridge (24BE1803/24SB588), properties eligible for inclusion on the National Register of Historic Places, and has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36CFR 800);

WHEREAS MDT participated in the consultation and has been invited to concur in this Memorandum of Agreement; and

NOW, THEREFORE; FHWA, the Montana SHPO, and Council agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.


### **Stipulations**

FHWA shall ensure that the following measures are carried out:

- 1) The MDT shall contact the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) to determine what level and kind of recordation is required for the William Bowe Ranch (24SB585). Unless otherwise agreed to by HABS/HAER, MDT shall ensure that all documentation is completed and accepted by HABS/HAER prior to relocation of any historic buildings contributing to the eligibility of the property. MDT shall ensure that copies of this documentation are provided to SHPO.
- 2) The MDT will relocate the eight buildings on the William Bowe Ranch that will be affected by the proposed road realignment (see Attachment 1). The buildings will be relocated in such a manner that their alignment and presentation to the roadway is altered as little as possible. The buildings will be moved in accordance with the recommended approaches in *Moving Historic Buildings* (John Obed Curtis, 1979, American Association for State and Local History), and in consultation with the SHPO, by a professional mover who has the capability to move historic buildings properly.
- 3) Within six months after the move, FHWA, in consultation with the SHPO, will re-evaluate the William Bowe Ranch for eligibility for inclusion in the National Register of Historic Places. If the property is determined to still be eligible, the MDT will assist the property owner in listing the site. The nomination form will include photographs of the site before the buildings are relocated and also photographs showing the site after the buildings are moved.

- 4) An interpretive marker will be installed at the Montana Department of Fish, Wildlife & Parks Salmon Fly Fishing Access Site describing the history and significance of the William Bowe Ranch to the lower Big Hole River valley.
- 5) The MDT will attempt to find a new owner for the Big Hole River Bridge (24BE1803/24SB588). The bridge will be advertised for adoption through the *Dillon Tribune*, *Bozeman Daily Chronicle* and *Butte's Montana Standard*. Public Service Announcements will also be aired on southwestern Montana AM and FM radio stations concerning the availability of the bridges for adoption. The bridge will be advertised for adoption for 45 days beginning on July 1, 1997.
- 6) The bridge will be adopted in accordance with the MDT's Adopt-A-Bridge policy (see Attachment 2).
- 7) If no one agrees to accept the bridges under the terms of the Adopt-A-Bridge policy, then the bridge can be demolished by the contractor. Prior to the demolition of the structure, however, the MDT will photodocument the bridge and submit a written report to the Council, SHPO and the local historical societies detailing the history of the bridge. The report will be prepared within sixty (60) days of the demolition of the structure.
- 8) If a new owner is found for the bridge, the MDT will notify the FHWA, Council and SHPO of the arrangement and will later provide documentation that the transfer of ownership has taken place.
- 9) If a dispute arises regarding the implementation of this Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant to the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Big Hole River Bridge - West of Melrose bridge replacement project and its affects to historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.

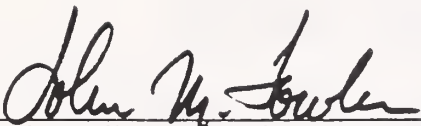
  
\_\_\_\_\_  
Federal Highway Administration

12-10-96  
(Date)

  
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Montana State Historic Preservation Office

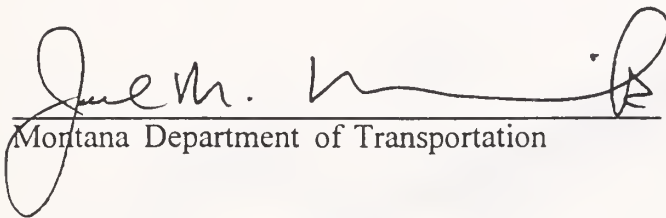
12-7-96  
(Date)



  
\_\_\_\_\_  
Advisory Council on Historic Preservation

1/10/97  
(Date)

Concurring Party:

  
\_\_\_\_\_  
Montana Department of Transportation

11/18/96  
(Date)

**WILLIAM BOWE RANCH (24SB585)  
SILVER BOW COUNTY, MONTANA**

**National Register-eligible buildings that would be relocated:**

- 1) Residence (F-1)
- 2) Bunkhouse (F-8)
- 3) Granary (F-9)
- 4) Blacksmith Shop (F-10)
- 5) Barn (F-11)
- 6) Log Building (F-12)
- 7) Root Cellar (F-13)
- 8) Log Outbuilding (F-14)

**National Register-eligible buildings that would remain in-place:**

- 1) Privy (F-3)
- 2) Outbuilding (F-5)
- 3) Chicken House (F-6)
- 4) Log Outbuilding (F-7)
- 5) Loafing Shed (F-16)
- 6) Outbuilding (F-17)
- 7) Outbuilding (F-18)
- 8) Log Outbuilding (F-20)
- 9) Loafing Shed (F-21)
- 10) Log Outbuilding (F-22)

F-7



F-6

F-5

F-4

F-3

F-2

F-1

F-8

PROPOSED CENTERLINE

F-12

F-10

F-9

F-14

F-13

F-11

F-27

F-15

F-21

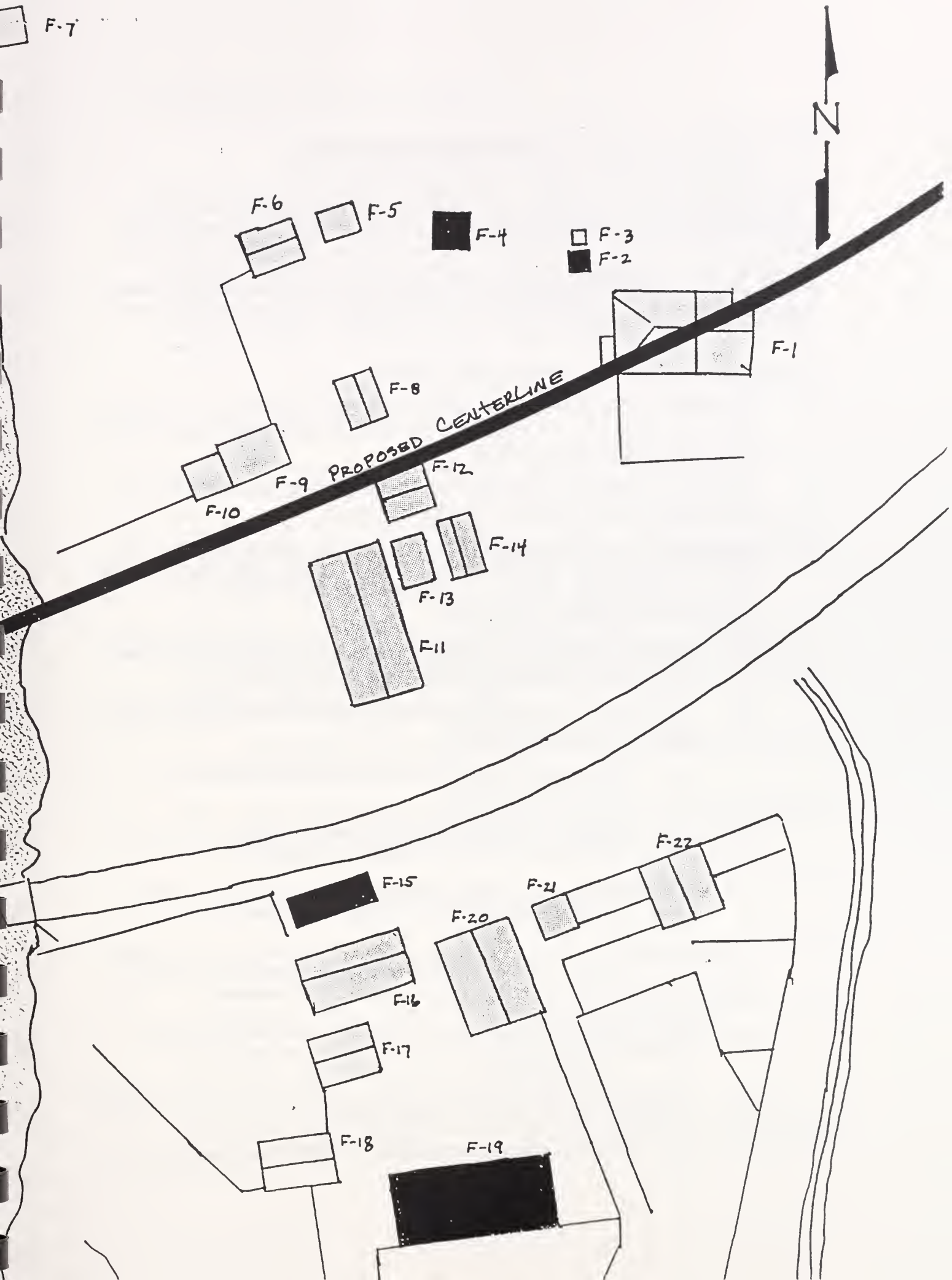
F-20

F-16

F-17

F-18

F-19



## MDT ADOPT-A-BRIDGE POLICY

The MDT has initiated an Adopt-A-Bridge policy to find "new homes for old bridges" that have been designated for replacement. It is recognized that not all historic bridges can be preserved through this program. Much will depend on the proximity of the structure to a suitable alternate site, type, size and condition of the existing bridge, the structure's ability to withstand the relocation, and the new owner's ability to accept responsibility and liability for the bridge. Doubtless many historic bridges will still be demolished, but this program may succeed in preserving a significant number of them.

The Adopt-A-Bridge policy consists of the following:

- 1) All truss and steel girder bridges with a structural rating of three (3) or above will be considered for the program. The bridge must be fifty years old at the time of the scheduled replacement.
- 2) Reinforced concrete and timber stringer bridges will not be considered for this program unless they can be preserved in place.
- 3) Evaluation of the historic bridge for inclusion in the program will be made during the preliminary field review of the proposed project by the appropriate District Administrator, the MDT Bridge Bureau, and the MDT's Environmental Services Unit historian.
  - A) The Bridge Bureau's recommendation will be based on the structural condition of the bridge and its suitability for relocation.
  - B) The historian's recommendation will be based on the bridge's historic and/or structural significance.
    - (1) The evaluation will be based on the National Register of Historic Places criteria.
    - (2) A bridge will not be considered for the program if the loss of integrity has rendered it ineligible for the NRHP.
  - C) The SHPO will be notified of the bridge's selection to the Adopt-A-Bridge program and given thirty (30) days to comment.
- 4) If deemed suitable to the program, the bridge will be advertised for adoption in the local newspapers and radio public service announcements (PSAs) for 45 days prior to the completion of the environmental document.
  - A) The historian will prepare the advertisement and submit it to the appropriate newspaper(s).
  - B) The MDT will offer potential owners the demolition cost of the bridge as an incentive to adopt the historic structure.
    - (1) If the bridge is to be relocated, then the demolition money can



be applied to the move.

- (2) If the bridge will be adopted and left in-place, then the money must be applied to the restoration, rehabilitation or liability of the historic structure.
- C) The Bridge Bureau will receive the responses to the advertisements and PSAs.
- 5) The Bridge Bureau will contact potential interested owners of the historic bridge and request they provide the following information (in writing): the proposed location, intended use of the bridge when adopted and ability to assume the liability and responsibility of the bridge.
  - A) If it is determined that a potential recipient of an historic bridge intends to demolish it for its value as scrap metal, then he/she will be removed from further consideration.
- 6) The District Administrator, Bridge Bureau and the historian will select the new owner based on the written response received from Part 5 above.
- 7) The new owner (2nd Party) must agree, in writing, to assume the liability for the historic bridge once he/she has taken possession of the structure. The MDT and/or County will not be held liable for the bridge once ownership has been transferred to the 2nd Party.
- 8) If the bridge will be relocated, the 2nd Party must remove the bridge from the construction site within 30 days of notification by the Project Manager. The 2nd Party will be reimbursed for the move once the MDT Bridge Bureau has been notified by the Project Manager that the bridge has been removed from the construction site and relocated.
  - A) The 2nd Party must maintain the bridge and the features that give it its historic significance.
  - B) The 2nd party must assume all future legal and financial responsibility for the bridge, which may include an agreement to the Montana Department of Transportation harmless in any liability action.
  - C) The 2nd Party will permit access to the relocated bridge for up to five years for follow-up documentation purposes.
  - D) The MDT will notify the 2nd Party of any inspection of the bridge ten working days before the visit.
- 9) If the bridge is left in place, the 2nd Party will be reimbursed for the property transferral once documentation has been received by the District Administrator, Bridge Bureau and historian detailing plans for restoration or rehabilitation and the agreement has been executed.
- 10) The 2nd Party will be responsible for securing all necessary permits and easements from the appropriate federal and state agencies (i.e. Army Corps of Engineers, Montana Department of Natural Resources and Conservation, etc.).

- 11) There will be no reimbursement to the second party until they have assumed the liability and responsibility for the bridge.
- 12) The MDT will be responsible for removing the abutments and piers and the clean-up of the old bridge site (if necessary).
  - A) If the abutments are determined structurally significant, they will be left in place.
    - (1) The MDT will make that determination on a case-by-case basis.
- 13) The historian will prepare a biennial report detailing the progress of the Adopt-A-Bridge program. The report will be submitted to FHWA, ACHP and SHPO and the Montana Transportation Commission. The report should include:
  - A) Number and type of bridges impacted by the program.
  - B) Current use of the historic bridges relocated or left in place.
  - C) Benefits and problems of the program.
  - D) Before and after photographs
  - E) Assessment of the program's value.
- 14) If the Adopt-A-Bridge program is proven to be ineffective in its purpose to preserve historic bridges under public or private ownership when left in place or at alternate locations, then it will be revised as necessary.
  - A) The FHWA, ACHP and SHPO will be asked to comment on revisions to the Adopt-A-Bridge program before enacted.

